LAGOON 380 CLUB & PREMIUM

User's guide

LAGOON

catamarans since 1984

www.cata-lagoon.com

We share a common passion for the sea: we, LAGOON, as boatbuilders and you, who want to live out your enthusiasm for the oceans.

We are delighted to welcome you to the great family of LAGOON boat owners and we would like to congratulate you on your purchase.

This instruction guide is intended to help you to enjoy your boat in comfort and safety. It includes the boat specifications, the equipment provided or installed, the systems on board and tips on her use and maintenance. Read this manual carefully before you put out to sea so that you can make the most of her and avoid any damage and difficulties. Read the manual and familiarize yourself with the vessel before using it.

We are continuously concerned to bring you the benefit of the latest technology, new equipment and material as well as our experience and therefore the boats are regularly improved. It is for this reason that the characteristics and information are not contractual and may be modified without prior warning and without obligation of updating.

This owner's manual has a general purpose and it may mention some equipment or accessories or deal with some points or questions that are not relevant to your own boat ; if in doubt, refer to the inventory that you received on delivery of your boat.

Our network of LAGOON authorized dealers is available to help you get acquainted with your boat and is best qualified to take care of her maintenance.

For your comfort and safety if this is your first vessel or if your are changing to a new type of boat with which you are not familiar make sure that you obtain experience in preparing and handling before "taking command" of the vessel. Your dealer, international sailing association or yacht club will be able to recommend local sailing schools or professional instructors

Although everything possible has been planned and designed with the safety of the boat and its users in mind remember that sailing is highly dependent on the weather conditions and the sea state, and that only an experienced and very fit crew, handling a well-maintained boat, can sail satisfactorily.

The sea and wind conditions that correspond to design categories A, B and C are changeable and are still susceptible to the risk of unusually large waves or strong gusts of wind. Total safety cannot therefore be guaranteed, even if your boat meets the requirements of a category.

Always consult the weather and shipping forecasts before taking your boat out to sea.
Make sure that the sea and wind conditions forecast correspond to the category of your boat, and that you and your crew are able to handle the boat in these conditions.

The sea and the water are not Man's natural environment and we must respect its laws and its strength.

Adapt the use of your boat to her condition, which deteriorates with time and use.

Any boat, however well built, may be severely damaged if badly used. This is not compatible with safe sailing. Always adapt the speed and direction of your boat to the sea conditions.

The 'COLREG' international regulations for the prevention of collisions at sea, published by the International Maritime Organization, specify the rules relative to steering and courses, navigation lights etc. throughout the world.

In many countries, a licence, an authorization or training certificate will be required.
Make sure you have the necessary legal authorization before you use your boat.

Always ensure an experienced professional carries out the maintenance of your boat, installs any accessories and the makes any small modifications. The written authorization of the builder or his legal representative is compulsory for modifications that alter the specifications of the boat, in particular the vertical arrangement of forms (installing a radar, modifying the mast, changing the engine, etc.).

For essential or optional equipment (engine, electronics etc.) refer to their respective manuals supplied with your boat.

Users of the boat are advised that:

- The entire crew must be properly trained.
- The boat must not carry a load heavier than the maximum load recommended by the builder, in particular the combined weight of food supplies, equipment not supplied by the builder and people on board. The weight carried by the boat must be properly distributed.
- The water in the bilge must be maintained at a minimum.
- Stability is reduced when you add weight to the upper sections.
- In the event of heavy weather, the hatches, lockers and doors must be closed in order to minimize the risk of water entering the boat.
- Stability may be reduced when towing another boat or when lifting heavy weights using the davits or the boom.
- Breaking waves are a serious danger to stability.
- If your boat is equipped with a liferaft, read the instructions carefully. All the proper safety equipment must be carried on board (harnesses, flares, liferaft, etc) according to the type of boat, the country in which it is used, the weather conditions, etc.
- The crew must be familiar with the use of all the safety equipment and all emergency safety procedures (MOB, towing etc.).
- All people on deck must wear a life jacket or a buoyancy aid. Please note that in some countries it is compulsory to wear an approved buoyancy aid at all times.

Keep this user's guide in a safe place and pass it on to the new owner if you sell the boat.

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This user's guide may sometimes list equipment or touch on certain topics which are not part of the standard specifications of your particular boat. The guide covers all the versions and main options of these models

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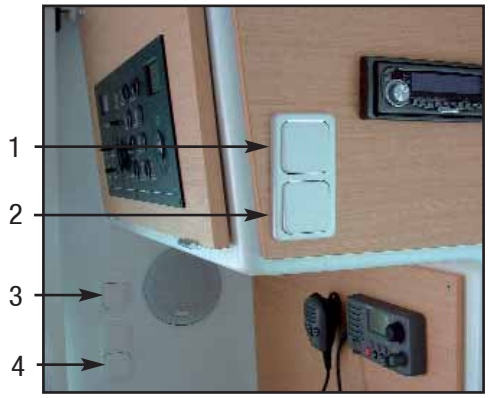
BLOCKING OF SLIDING DOOR

BATTERY SWITCHES - PORT ENGINE + HOUSE PORT AFT CABIN

BATTERY SWITCHES - STBD ENGINE + ENGINE COUPLING STBD AFT CABIN



ENTRANCE SWITCHES

1 - Saloon ceiling light switch.

2 - Galley ceiling light switch.

3 - Spotlight switch for rigid bimini (optional).

4 - Saloon ceiling light switch.

■ Getting Underway

The sliding door locks in three different positions: closed, ajar (airing position) and open.
A latch on the doorframe enables locking from inside the saloon.

RECOMMENDATION
While sailing lock the sliding door shut.

Switch on the mains power of the boat by activating the battery switches located in the port and starboard aft cabins, then activate the different accessory switches on the electrical panel.

Check the charge rate of the batteries, the water level in the tanks and the fuel level (see ELECTRICITY and MOTORIZATION chapter).

Carry out the inventory of compulsory safety equipment and instruct the crew concerning its location and operation.

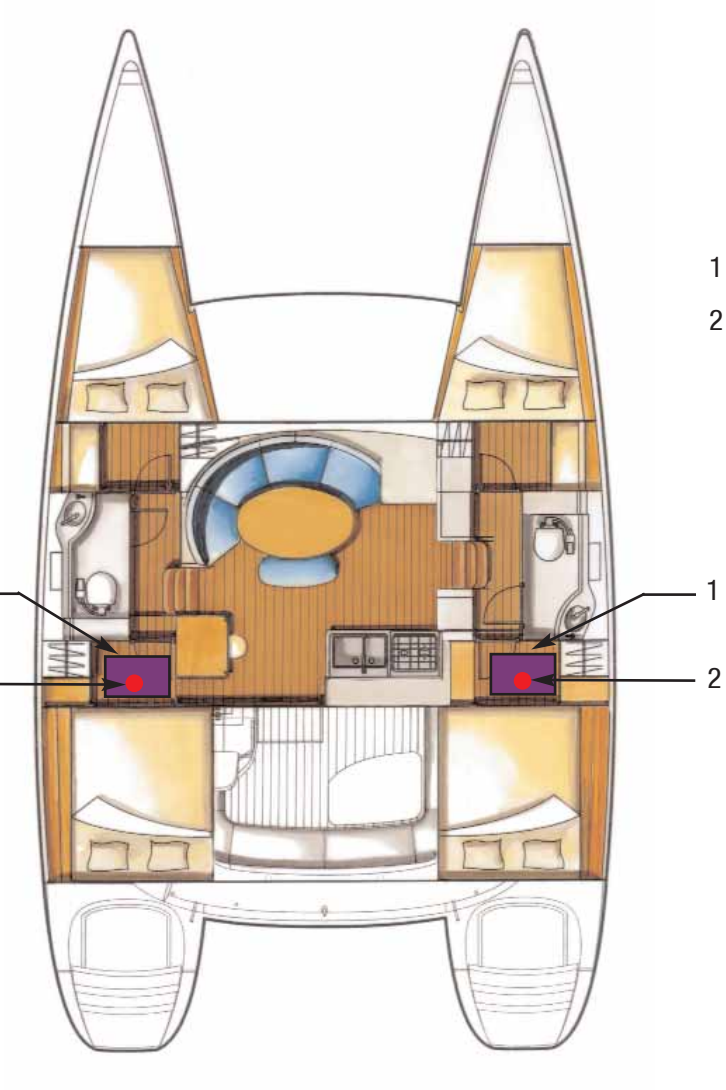
DANGER
Remember to disconnect the shore power supply before casting off.

■ Navigation visibility

The international regulations to prevent collision at sea (COLREG) and course regulations make mandatory a permanent and proper surveillance and the respect of priority. Make sure there is no other boat in your course.

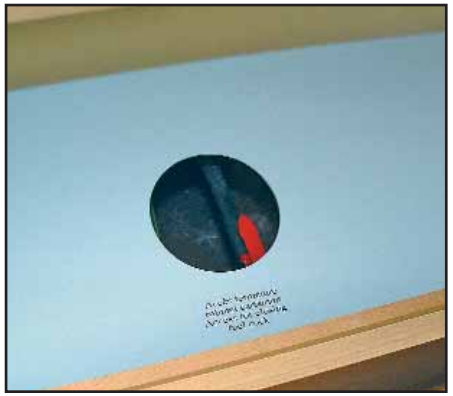
Visibility from the steering station may be obstructed by the following:
- Load and load distribution.
- Sea conditions, rain, spray, fog or darkness.
- Lights on inside the boat.
- People and mobile equipment in the helmsman's field of visibility.

FUEL VALVES



1 - Fuel tank.

2 - Fuel valve.



FUEL VALVE

■ Navigation under engine

Before starting the engine:
- Make sure that the fuel valves are open.
- Open the valves for the engine cooling systems.
(see chapter MOTORIZATION).

To start the engines, refer to the manufacturer's manual too.

• STARTING THE ENGINE

- Turn on the battery switches located in the port and starboard aft cabins.
- Disengage the reverse gear (to allow acceleration in neutral).
- Start the engine.

After starting the engine check for cooling water running out of the exhaust and observe the colour of exhaust gases.

• BATTERY COUPLING (OPTIONAL EXTRA)

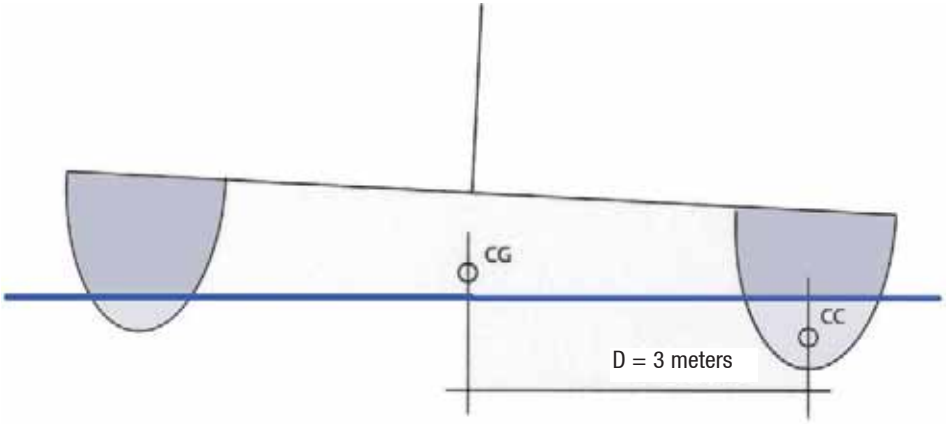
In the case of low engine battery power use the battery coupling function by turning on the coupling handle located in the starboard aft cabin.
Once the engines have been restarted make sure that the coupling handle is turned back to its original position.

• NAVIGATION

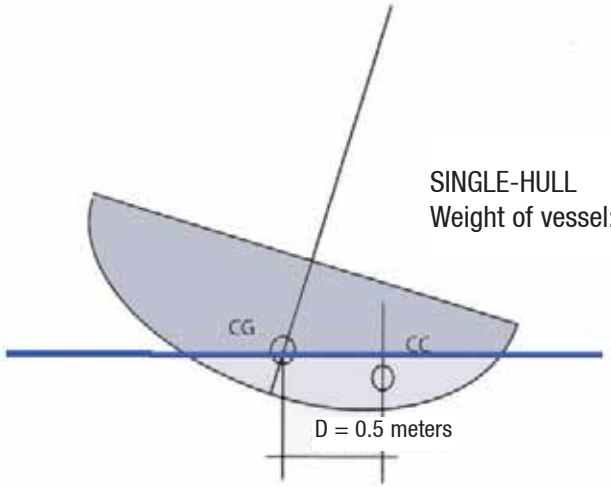
When using the engine, avoid making noise and wake near other users.
Respect speed limits.

WARNING
Never switch off the ignition or the electrical system when the engine is running.

RIGHTING MOMENT



CATAMARAN
Weight of vessel: 10 tonnes



SINGLE-HULL
Weight of vessel: 10 tonnes

Illustration showing the difference between the righting moments of a single-hull vessel and a catamaran of 10m length.

d: distance between centre of buoyancy and centre of gravity.

RMmax: weight of vessel x d
(RMmax: maximum righting moment)

RMmax single-hull : 10 tonnes x 0.5 meters
: **5 tonnes.meters**

RMmax catamaran : 10 tonnes x 3 meters
: **30 tonnes.meters**

■ Navigation under sail

• BEWARE
A catamaran presents 6 times greater heel resistance than a single-hull vessel. In terms of ship design we speak of righting moment (multiplication of the vessel's weight by the transverse distance between the centre of gravity and the centre of flotation (or buoyancy).
See illustration opposite.

This fact has real consequences for the handling and sail-trimming of a catamaran.

The fact that the boat will not heel over could conceal an excessive sail surface area in use, which could be dangerous for the crew and the vessel. It is therefore essential to constantly monitor the real windspeed and to trim the sail area as a priority according to this speed.

These latter adjustments are valid in calm seas. In rough seas one should take the precaution of reducing 10% earlier in terms of real windspeed. Generally speaking, it is essential to constantly look to relieve the vessel rather than to put it under stress.
One should always look for the sail angle of attack to be headed to the apparent wind and the sails to be not over-trimmed so that the airflows leaving the sail are parallel to each other, that is to say they do not create turbulence behind the sail.

Failure to follow the above recommendations can be dangerous for the boat and the crew, and the manufacturer cannot be held responsible in the event of an accident.

• CLOSE HAULED TRIMMING (between 75 and 50° to true wind)
Wind force given in apparent wind
- **From 0 to 16 knots**: full sail ; main sail traveller 30 cm above the boat centre, main sail trimmed with a slightly opened leech (boom centred).
The genoa jib is trimmed to near the spreader, the genoa traveller is placed so that the angle of the genoa sheet forms a straight line with the clew and the luff, at 40% of its height.

- **From 16 to 20 knots**: full sail; the main sail traveller moves up to 60cm above boat centre, main sail trimmed with a slightly more open leech (boom still in line: so the sheet will have to be slackened).

- **From 20 to 26 knots**: 1 reef, full genoa; the main sail traveller comes back to 30cm above boat centre.
The genoa traveller does not change position but the sheet is slackened slightly so that the leech is 20 cm from the spreader.

- **From 26 to 30 knots**: 1 reef, 75% of the genoa, the main sail traveller goes to 60 cm above the boat's centre.
The genoa traveller remains in place or moves slightly forward but it is adjusted so that the leech acts as a propeller, the upper part dumping air out in strong wind conditions.

- **From 30 to 36 knots**: 2 reefs, 60% of the genoa, the main sail traveller returns to the 30 cm above centre position, the boom is slackened to fly 50 cm leeward.
The genoa traveller is moved slightly forward, the adjustment remains the same.

MAIN SAIL AREA

Main sail high: 47 m².

Main sail 1 reef: 32,43 m².

Main sail 2 reefs: 20,21 m².

- **From 36 to 45 knots**: 2 reefs, 40% of the genoa. The main sail traveller is dead centre and the boom veers 1 metre to leeward.
The genoa traveller moves forward slightly, the sheet is slackened to open wide in strong wind conditions.

- **From 45 to 55 knots**: 3 reefs alone (either storm sail or lie to), traveller in the centre, main sail out by 1meter.
The boat will be more at ease scudding in this weather.

- **Over 55 knots**: lie to, drag anchor or, preferably, scud bare poles.

• CLOSE REACHED TRIMMING (between 75 and 130° to true wind)

- **From 0 to 23 knots**: full sail; the traveller is positioned between 1 meter from centre up to the end of the track depending on the wind angle, the sheet is slackened so that boom is veering out anything from 50 cm in calm weather to 2 meters when the wind is forcing.
In every case no more than one batten should be allowed to chafe the shroud at the fastest speeds.
The genoa jib is slackened so that its average attack angle is head on to the apparent wind.

- **From 23 to 28 knots**: 1 reef, all the genoa. The adjustments are identical.

- **From 28 to 33 knots**: 2 reefs, 80% of the genoa. The adjustments remain identical.

- **From 33 to 38 knots**: 2 reefs, 60% of the genoa. The adjustments remain identical.

- **From 38 to 45 knots**: 3 reefs (or main sail lowered and a little more genoa), 40% of the genoa. The adjustments remain identical.

- **From 45 to 55 knots**: main sail lowered, 40 to 30% of the genoa, sufficiently trimmed so as not to flap.

- **Over 55 knots**: scudding, depending on the sea conditions the mooring lines can be looped round behind the vessel and attached on the opposite side to act as a brake.

These indications are given for your information only and are dependant on outside conditions.

WARNING
Your boat is designed to sail without the need to climb onto the roof for any manœuvres.
It is dangerous to climb or stay on the roof particularly in the event of gybing.
Keep children under close supervision.

• REDUCTION OF SAILS

The boat is fitted with 3 reefs.
Reefs are automatics.

Putting in reefs no.1 and no.2:
1 - Head the boat into the wind.
2 - Haul taut the topping lift.
3 - Slacken the main sail sheet.
4 - Slacken the main sail halyard and then trim reef line no.1 or no.2, as needed, until the reefing blocks which correspond to the luff and the main sail leech are a few centimetres from the boom.
5 - Close the line camcleat of the respective reef.
6 - Hoist taut the main sail halyard.
7 - Slacken the topping lift and take in the main sail sheet.

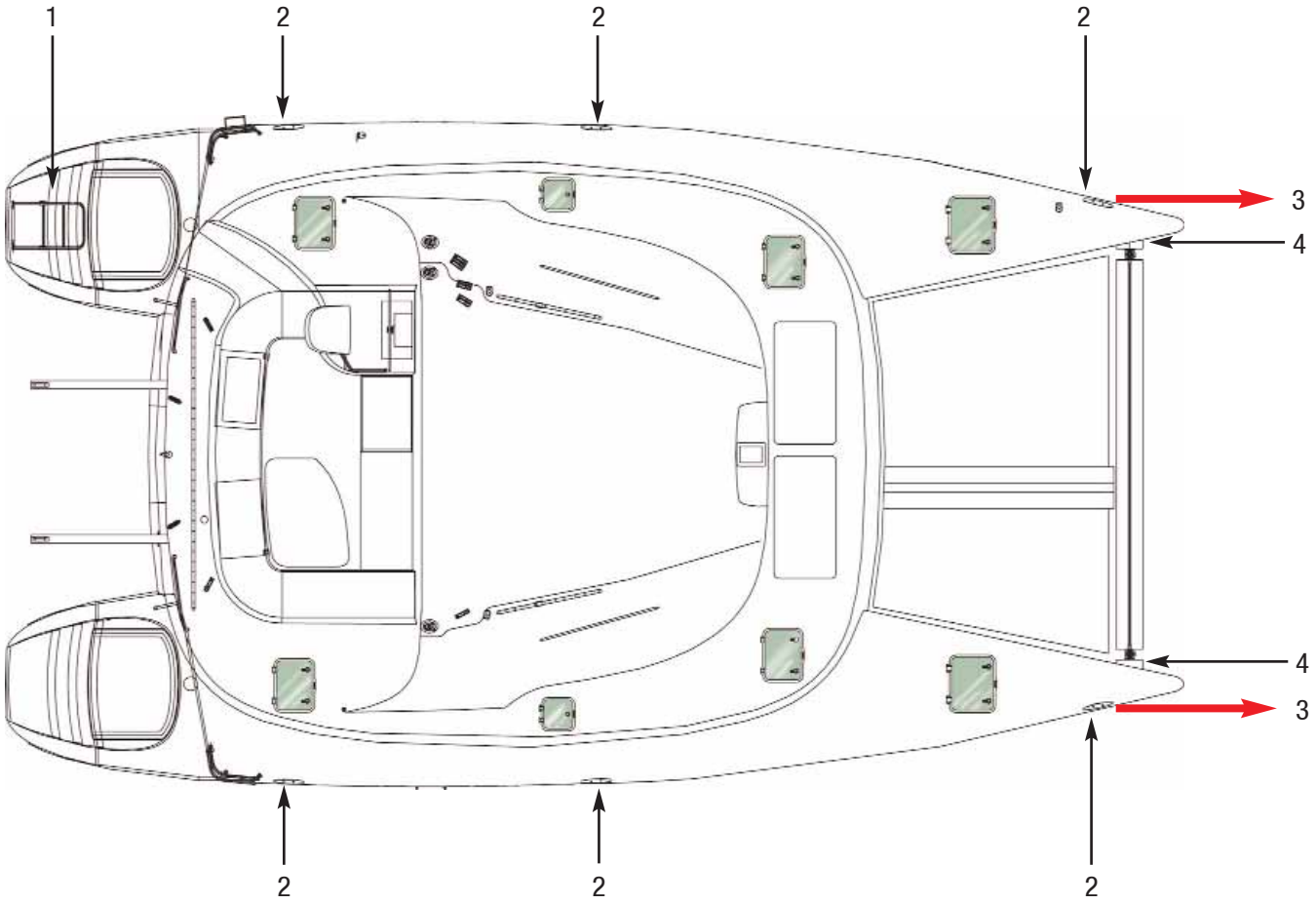
Refer to the running rigging diagram (chapter on RIGGING AND SAILS) for identification of ropes.

RECOMMENDATION
For safety, the reef line used should always stay on the winch with 3 turns around the gipsy.
Re-close the camcleat for greater safety.

• SAILING WIND ASTERN

- Do not fall off more than 150° to the apparent wind.
- Put the traveller out as far as possible and slacken the sheet slightly.
- Make sure the main sail does not touch the shrouds; the rubbing of the battens will wear the material and cable very rapidly.
- Keep main sail + jib up to 15 knots speed and put in one reef or more if the accelerations are sudden and strong or if sea conditions deteriorate.

DECK LAYOUT



1 - Swimming ladder.

2 - Mooring cleat and jackline fastening.

3 - Midship cleat for towing.

4 - Anchor bridle fastening.

■ Mooring

A sufficient number of dockside lines of a size suitable for the environment should be on board for mooring your boat.
- Always manoeuvre your boat using the engine.
- Make allowances for currents and wind when handling your boat.
- Protect your boat properly with suitably sized fenders.
- Always keep the dockside lines clear and stored away.
- Manoeuvre at a reduced speed.

DANGER
Do not try to stop the boat with your foot, your hand or a boat hook.

AFTER MOORING
- Protect the dockside lines from chafing with plastic sleeves.
- Allow for tide variations if necessary.

■ Towing

TOWING
- Tow another boat at a reduced speed and as smoothly as you can.
- Be particularly careful when throwing or catching the towing line (it may catch on the propeller).

NB: Stability may be reduced when towing a boat.

BEING TOWED
- Keep steering your boat and ensure you stay in the wake of the towing boat.

■ Anchoring

As a rule, set the anchor in at least 3 times the water depth.

RECOMMENDATION
Before anchoring check the depth of water, the power of the current and the nature of the sea bed.

• PREPARATION OF ANCHORING (illustrations following page)

- Install the bridle by fixing it to the chain plates located at the ends of the fore beam.
- Put the bridle through the stem bow roller.
- Shackle the bridle to the central cleat during the lowering of the chain.

• MANUAL ANCHORING

- Point your boat into the wind and at zero speed.
- Release the gypsy brake.
- Pay out the chain while reversing slowly.
- Secure the anchor chain on the bridle.
- Lead out the chain until the bridle becomes taut.

FIX THE BRIDLE TO
THE FORWARD BEAM

PASS THE BRIDLE
THROUGH THE BOW ROLLER

SHACKLE THE BRIDLE
TO THE CHAIN

WINDLASS
CONTROL

WINDLASS CIRCUIT
BREAKER (PORT AFT CABIN)

• WINDLASS ANCHORING

WARNING
All anchoring manoeuvres using the electric windlass must be carried out with the port engine running.

- Release the anchor clutch.
- Activate the windlass with the control located in the saloon.

• RAISING THE ANCHOR

- Tighten the gypsy brake.
- Ensure the chain is properly set on the chain gypsy.
- Slowly advance the vessel using your engine (do not use your windlass to advance the boat).
- Release the bridle from the chain.
- Lift the anchor completely.
- Visually check the last few meters until the anchor makes contact with the davit.
- Check the position of the anchor on the stemhead fitting.
- Fasten the anchor clutch.

WARNING
Windlass operations are dangerous:
- Always keep the anchor line clear and unencumbered.
- Always proceed with care, using gloves and always wearing shoes.

In the case of electrical failure use the winch handle on the windlass to lift anchor.

• MAINTENANCE

After each trip rinse the windlass and dockside line with fresh water.

Refer to the manufacturer's instructions for windlass maintenance at the beginning or end of the season.

DAVITS

DAVITS

DAVIT BLOCKERS

ATTACH
DAVIT LINES

■ Davits (optional extra)

WARNING
Nobody should be aboard the tender during manœuvres carried out with the davits.
Moor up the tender during manoeuvres.

• INSTALLING A TENDER ONTO THE DAVITS

- Fix the davit line hooks to the forward and aft of the tender.
- Close the blockers located on the davits.
- Pull the bow of the tender up to halfway.
- Repeat the operation for the stern.
- Alternatively raise bow and stern until the tender comes into contact with the davits.

• LAUNCHING A TENDER FROM THE DAVITS

- Ensure that the blockers on the davits are closed.
- Thread the davit rope attached to the stern of the tender around a winch (minimum of three turns).
- Open the blocker and let the line feed out to halfway.
- Close the blocker.
- Repeat the operation for the bow.
- Alternatively lower bow and stern until the tender comes into contact with the water.

WARNING
When under sail remove the tender engine and store it on board the boat.
Fasten the tender according to sea conditions.

WARNING
The davits are designed to support a load of 200 kg at maximum.

■ Environment

RECOMMENDATION
Like us you love the sea.
Help us to protect it; do not pollute!

Do not discharge oil into the sea.
Take every precaution to prevent hydrofuel overflow when filling the engine tank.

When in port, only use the onboard WC if it is equipped with organic waste reservoirs.

The use of detergents is implicated in the destruction of marine plant and animal life. Choose fully biodegradable cleaning products.
Do not throw plastic bags and bin bags into the sea. Use the bins provided for this purpose at ports.

Winter storage 2

LAYING UP **25**

PROTECTION AND MAINTENANCE **25**

■ Laying up

- Take ashore all the ship's documents, any lines that are not used for dockside, galley equipment, supplies, clothes, safety equipment, batteries and gas bottles.
- Check the safety equipment, check expiration dates, have the liferafts overhauled.
- Take advantage of the laying up to draw up a complete inventory of equipment.

• BLOCKING THE BOAT ASHORE

Prepare for each hull:
- A large rectangular wooden block of 1m in length and a tire to be placed under the stern, across the keel.
- A steel jackstand of a minimum of 1m in height which will be placed under the forward part of the forward bulkhead.

Make sure that the aft part of the keel is well-chocked (on its block) before very carefully lowering the forward section onto the jackstand.

■ Protection and maintenance

• INTERIOR

- Drain all the fresh water hoses and rinse them with water and vinegar (do not use a chlorine based product).
- Lubricate and close all the water inlet valves and thru-hull fittings. Rinse and completely drain the toilet bowls and pumps.
- Retract the sounder and speedometer sensors.
- Seal air inlets as much as possible.
- Install an air dehumidifier in the salon and leave the cabin and storage unit doors open (lockers, ice boxes).
- Air the cushions outside for as long as possible before returning them to the boat, placing them upright on one side to limit contact surfaces.

• EXTERIOR

- Thoroughly rinse the hull and deck.
- Lubricate all mechanical and mobile parts with vaseline (bolts, hinges, locks etc.).
- Protect all lines and dockside lines against chafing.
- Protect the boat to the highest degree with fenders.
- Make sure the boat is properly moored.

This list of recommendations is not exhaustive. Your dealer can advise you and carry out the technical maintenance of your boat.

• ENGINES

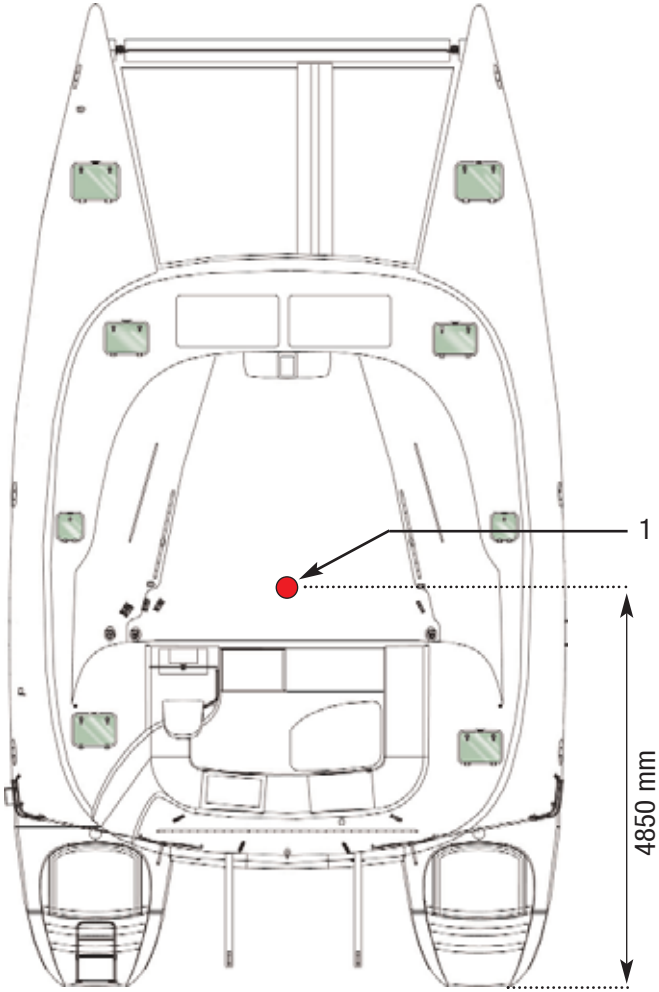
RECOMMENDATION
Winter storage of the engines is the domain of professionals. Storage conditions will depend on whether the boat is stored afloat or ashore.

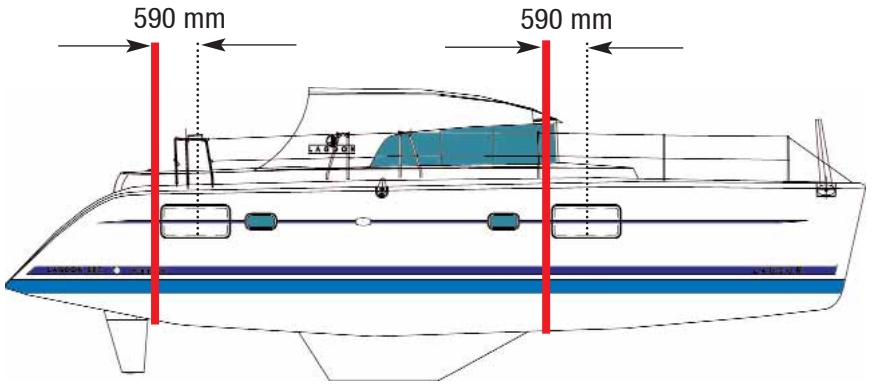
Launching 3

RECOMMENDATIONS **29**

STEPPING THE MAST **31**

POSITIONING THE HOISTING BELTS





1 - Centre of gravity.

■ Recommendations

A lot of skill and care is required to commission your boat for the first time.
The future proper functioning of your boat and its equipment depends on the quality of the commissioning operation.

In order to validate the warranty in the event of the failure of certain equipment, the initial launch and equipment tests must be carried out by your LAGOON dealer or agent.

RECOMMENDATION
All future maintenance should be carried out with the greatest care by professionals. If the LAGOON boatyard is not involved in maintenance operations, your guarantee will not cover any incidents linked to handling errors.

• BEFORE LAUNCHING

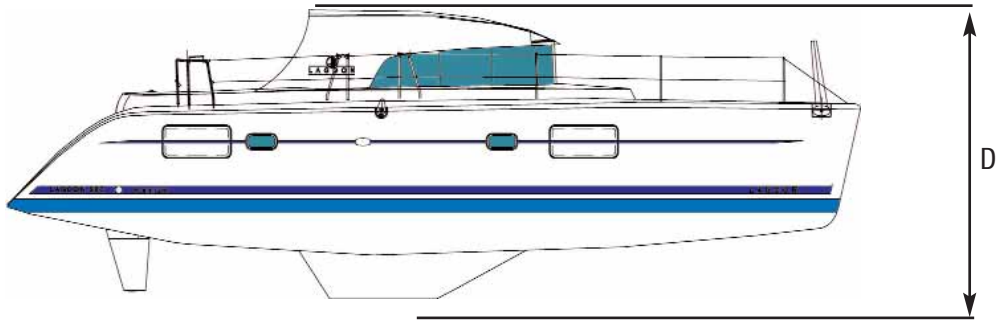
- If your boat is to be fitted with a sounder and speedometer, allow for the relevant fittings and their installation.
- Check the water intake strain box for cleanliness.
- All the optional accessories should be sealed with paste.
- Retract the speedometer into its housing (it may be damaged by the handling belts).
- Turn off all the water inlet and drain valves (sink, washbasin, heads and engine).

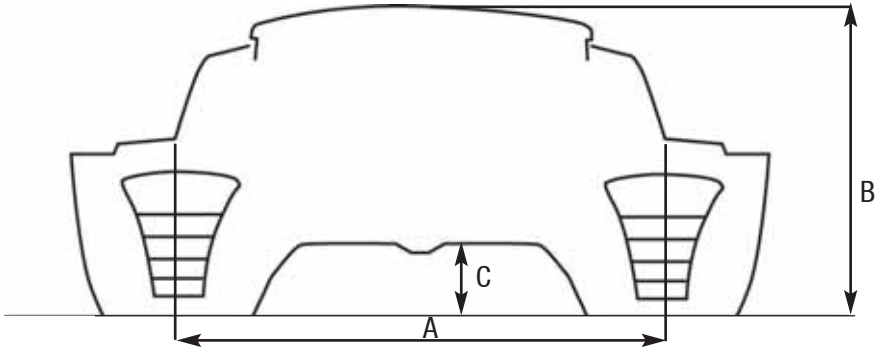
• HOISTING

Tie off the vessel fore and aft with fenders.
Prepare:
- 2 belts (minimum 11 meters).
- 4 slings.
- Attach the 4 slings to the straps.

- Take up the slack; the sling hooks should be situated at the boat's centre of gravity.

SUPPLEMENTARY INFORMATION IN THE CHAPTER ON GENERAL SPECIFICATIONS





Ref	Identification	Size (m)
A	Width between the two hull centres	4,50
B	Height clearance (without mast or appendix)	2,85
C	Flotation height under cockpit	0,72
D	Vessel height on its keels (without mast or appendix)	4,08
	Length of boom	3,40
	Length of Europe mast	15,45

Hoist gently, and control the movement of the boat with dockside lines.

DANGER
Do not stay on board or under the boat during hoisting.

RECOMMENDATION
Never place belts or fenders in contact with the large glass sections on the hulls.

• AFTER LAUNCHING

- Check the sounder and speedometer fittings for tightness if necessary.
- Open the valves and make sure that they are watertight.

Before starting the engines, refer to the GETTING UNDERWAY chapter.

■ Mast stepping

If later you have to step the mast anywhere other than at your LAGOON dealer, proceed as follows:

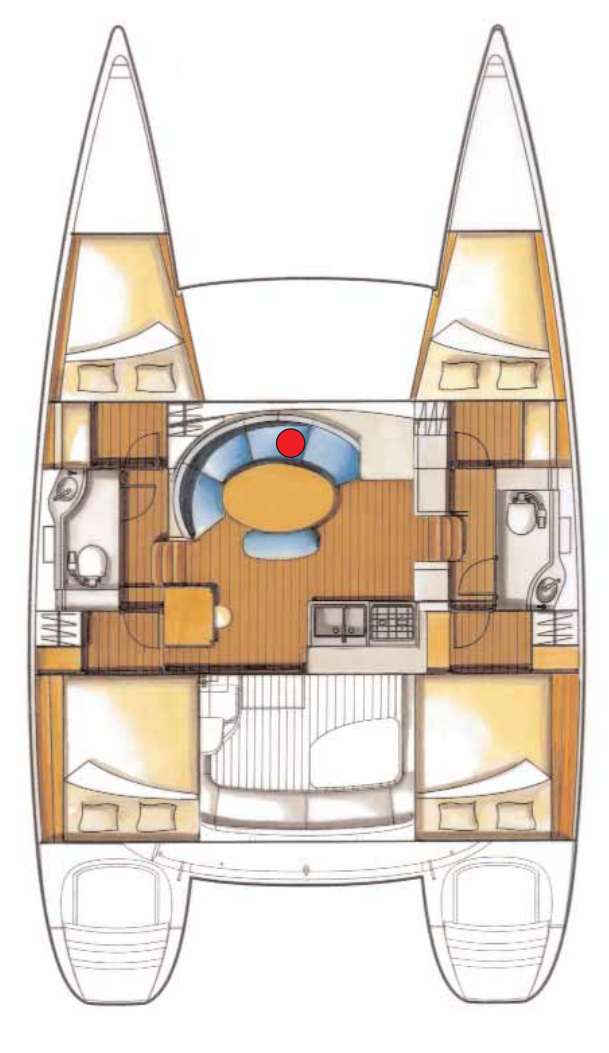
• BEFORE MAST STEPPING

- Protect the mast against possible chafing by the crane hook and cable.
- Tie down the shrouds and all the riggings to the base of the mast with lashing long enough to guide the mast heel when stepping the mast.
- Protect the spreader end fittings and the roller furler drum.
- Pass round the mast a line of about 1.50 m with an eye and thimble at both ends and covered with rags ; place this rope over the cross tree step.
- Link together both thimbles (in front of the mast) with a shackle large enough to receive the crane hook.
- Raise the whole till it is taut under the spreader bases.

• DURING MAST STEPPING

- Take the necessary steps to avoid damaging the mast head equipment.
- Use the backstay and lashing at the base of the mast to control the handling.
- Engage the electrical harness in the mast base.
- Ensure the base of the mast bears fully on its base plate.

MAST JUNCTION BOX



• AFTER MAST STEPPING

- Lubricate all the turnbuckles (see recommendations in the RIGGING chapter).
- Tension the rigging (refer to RIGGING chapter for settings).
- Reconnect the electrical cables in the mast step junction box located in the forward locker of the saloon bench seat.
- Check very carefully that the turnbuckle fixing pins are well locked and protect them with adhesive tape.
- Re-install the boom and re-lead all the lines.

RECOMMENDATION
Re-adjust the mast after a few miles.

• DISMASTING

Proceed by carrying out the operations described for mast stepping in reverse order, taking care to mark the line locations with labels.

RECOMMENDATION
Before all dismasting operation, remember to disconnect the electric cables.
Pull gently while guiding the cables.

Hull & deck

4

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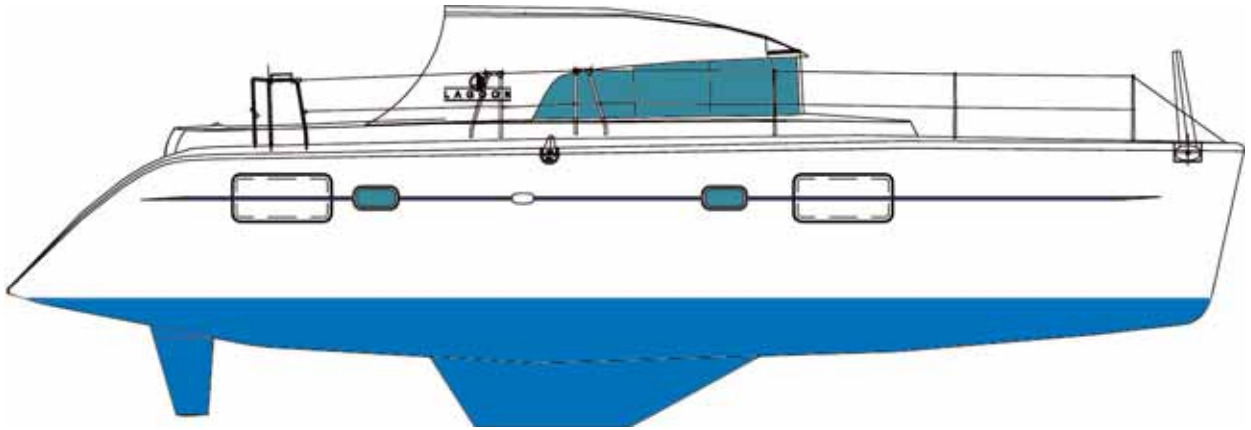
GEL COAT REPAIRS **39**

STEERING GEAR **39**



Submerged area (including appendices): 44 m^2.

■ Construction

The LAGOON 380 is built of balsawood sandwich (monolithic below the water line), polyester resin and vinyl-ester; the counter-moulds are monolithic and the partitions are made of laminated plywood.

The cockpit and deck are of balsawood sandwich.

■ Maintenance

The materials and equipment of your boat have been selected for their high quality and performance and for their ease of maintenance. However you must carry out a small amount of maintenance in order to protect your boat from external elements (salt, sun, corrosion...).

Clean your boat preferably on shore with fresh water.
Use as few cleaning agents as possible.
Do not use solvents or aggressive detergents.
Do not discharge cleaning products into the sea.

Regularly brush the deck with a degreasing cleanser and fresh water.

RECOMMENDATION
We strongly advise against the use of pressure washers.
Do not use hot water or steam.

DECK FITTINGS
- Thoroughly rinse all your equipment with fresh water.
- Periodically lubricate blocks, sheaves, turnbuckles, winches, tracks and travellers with water-repellent grease.
- Stainless steel that is showing small spots or blisters of rust should be cleaned and polished with a chrome and steel renovator.

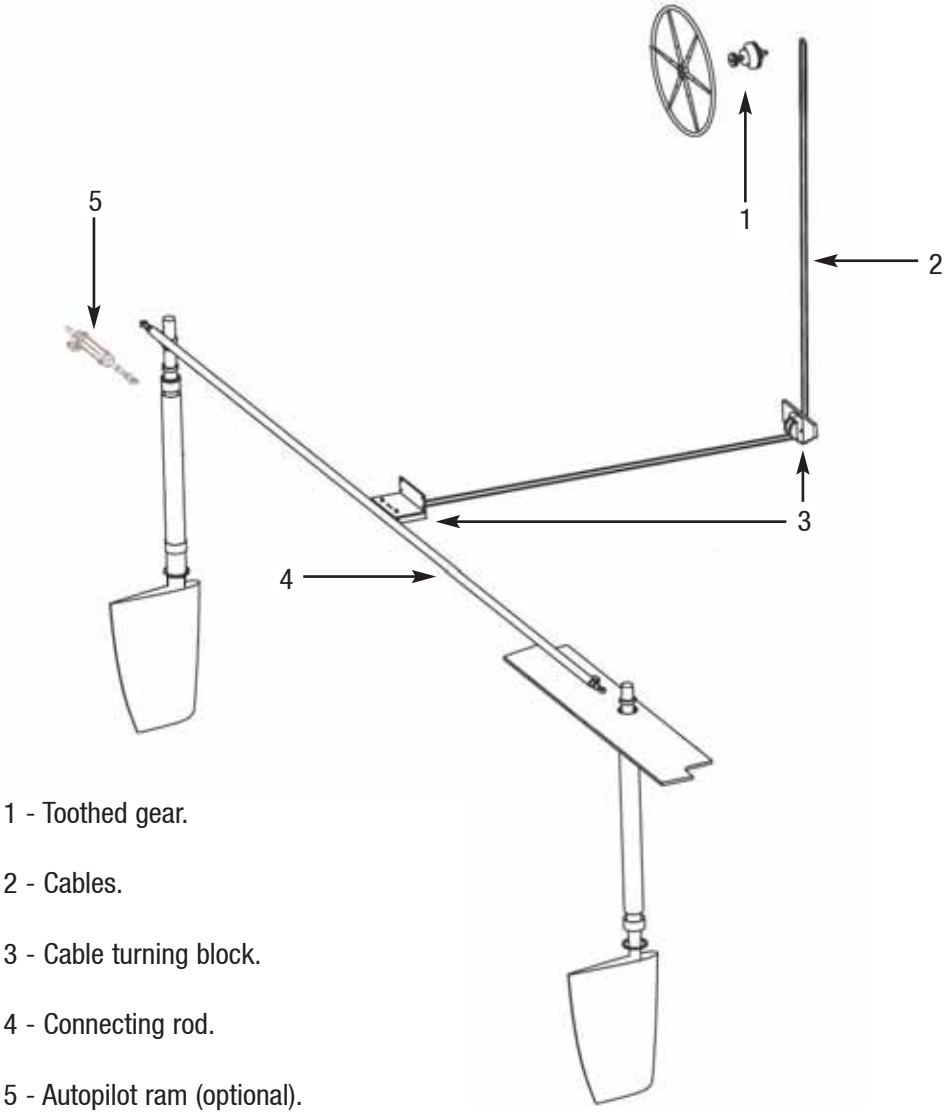
EXTERNAL TEAK FITTINGS/TECK DECK
Regularly clean all exterior wood with fresh water using a sponge (if necessary some gentle soap may be added).

PLEXIGLASS
- Rinse Plexiglass with fresh water.
- Polish with a soft cloth soaked in liquid paraffin.
- Use polishing paste to remove scratches.

■ Cleaning the bottom

Applying a tin-free anti-fouling paint every year will avoid the need for tedious and frequent bottom cleaning. An epoxy undercoat is recommended. You are reminded that any sanding before applying anti-fouling paint attacks the gel coat and impairs its effectiveness.

Polishing will restore your boat's original shine. If a persistent and isolated problem arises, contact your dealer.



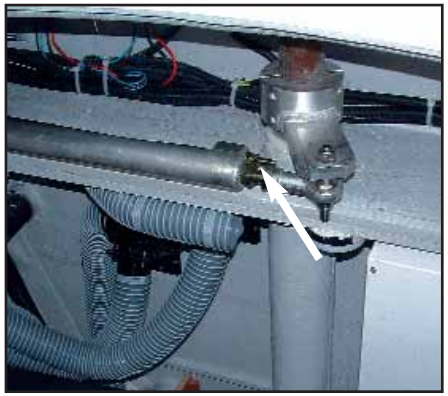
1 - Toothed gear.

2 - Cables.

3 - Cable turning block.

4 - Connecting rod.

5 - Autopilot ram (optional).



CABLE TENSION SYSTEM

■ Gel coat repair

PROPORTIONS
Our products contain an accelerator. You simply need to add the catalyst (colourless liquid). The usual proportion is 2%.
The gel setting time (working time) is about 30 minutes, complete hardening takes about 10 hours.

WARNING
Please respect the following conditions for successful repairs:
- Dry weather.
- Temperature between 15° C and 25° C.

APPLICATION
- To fill a blister hole or a scratch, sand and clean the area with acetone.
- Prepare the necessary amount of gel coat, preferably on a glass plate.
- Apply the product with a spatula or a nib in a layer thick enough to enable further sanding.
- In order to even out minor touch-ups on smooth surfaces, stick cellophane tape (or better, mylar tape) on the freshly applied gel coat.
- Remove sellotape after hardening.
- To obtain a high shine finish, sand with extra fine paper and water, then polish.

STORAGE
Store gel coat components in a cool, dry and dark place.
The components can be kept for a maximum of 6 months.
Polyester products are flammable, so take the usual precautions.

CLEANING YOUR TOOLS
Clean your tools with acetone.

DANGER
The catalyst is a dangerous product:
- Keep it out of the reach of children.
- Avoid contact with the skin and mucous membranes.
- In the event of contact, wash with soapy water and rinse thoroughly.

■ Steering gear

The steering system is accessed via the engine compartment.

- Check tension regularly.
- Do not overtighten the steering cables.
- Lubricate all elements with grease.
Treat nylon, ertalon or Teflon bushings with WD40 only.

Proper settings results in gentle steering resistance, without hard points and without looseness.

Layouts 5

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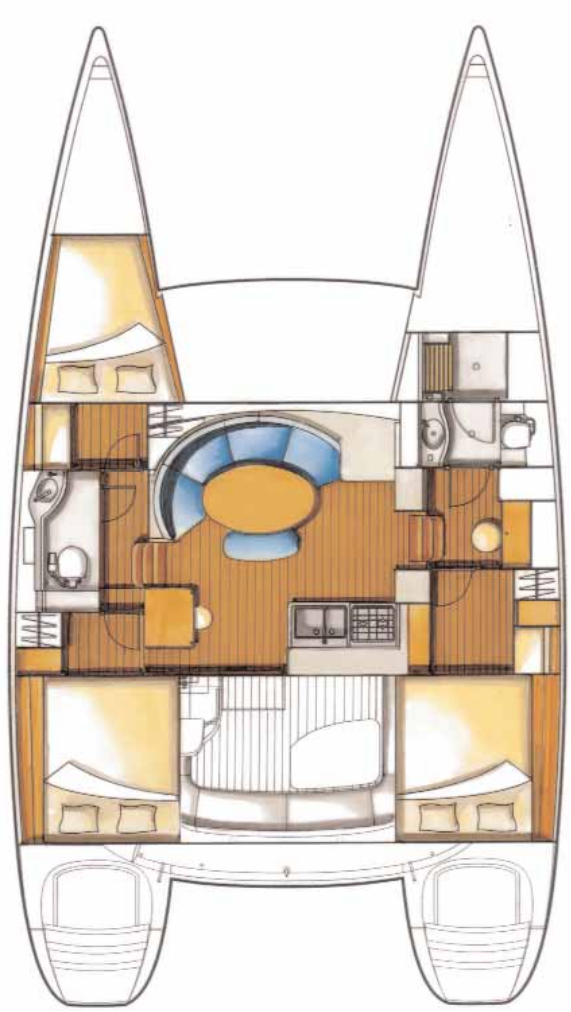
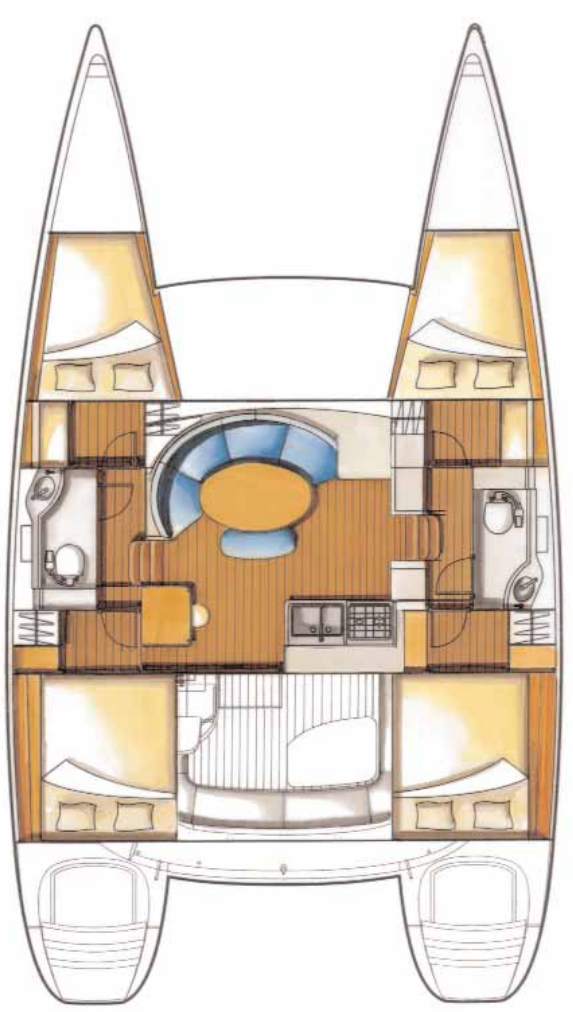
LAYOUTS



3 cabin version.



4 cabin version.

■ Interior maintenance

- Take advantage of nice weather to air the sofa and berth cushions.
- Stand the cushions vertically if you leave the boat for a prolonged period.
- Use sun shades to protect the inside of the boat from UV rays.
- Ensure sure the bilges are clean and dry.

• INTERIOR VARNISH

- Rinse interior varnish with fresh water mixed with spot removing furniture shampoo.
- Polish interior varnish with chamois leather.

RECOMMENDATION
Use as few cleaning agents as possible.
Do not discharge cleaning products into the sea.

■ Fabrics

ADVICE: Mark each cover and foam pad when dismantling for easy identification.

• STAIN REMOVAL

- Remove as much of the stain as you can with the blade of a knife (starting from the edge and moving towards the centre).
- Dab with a clean cloth.
- Remove the stain using a clean cloth dipped in solvent. Never pour solvent directly onto the stain.
- Rub with a clean, dry cloth.
- Brush the fabric against the grain.
- Vacuum the fabric when dry.

PVC AND COATED FABRICS

- Use a sponge and soapy water (household soap).
- For persistent stains, dab with a cloth soaked in white spirit, do not rub.

RECOMMENDATION
For PVC fabrics do not use solvents or solvent based products.

JACQUARD 100% POLYESTER / DRALON

If the fabric cannot be removed:
- Go over it with a vacuum cleaner.
- Clean with synthetic foam (see the product's instructions for use).

If the fabric can be removed:
- Handwash at 30° with standard washing powder.

Both types of fabric can be dry-cleaned. Remove stains as soon as possible with a damp cloth.

SERVING HATCH - REMOVABLE ICEBOX - DECK HATCH

SERVING HATCH

REMOVABLE ICEBOX

LOCKING DECK HATCH

(Handle buttons in open position)

COTTON JACQUARD
- Dry clean.
- Do not iron.
- Do not use hypochlorite.
- Remove stains with fractionated petrol.

ALCANTARA
- Wash in warm water with pH neutral soap.
- Dry naturally.
- Dry clean with perchloroethylene.

LEATHER
- Use a leather cream for day-to-day care.
- Do not use detergent.
- Do not use silicone based products.
- Clean with a sponge and soapy water.
- Remove ball point pen marks with methylated spirit.
- Remove grease stains with an absorbent powder (e.g. talcum powder).

■ Cockpit table, serving hatch, icebox

As an optional extra the cockpit can be fitted with a large polyester table.
The saloon and cockpit tables are interchangeable.

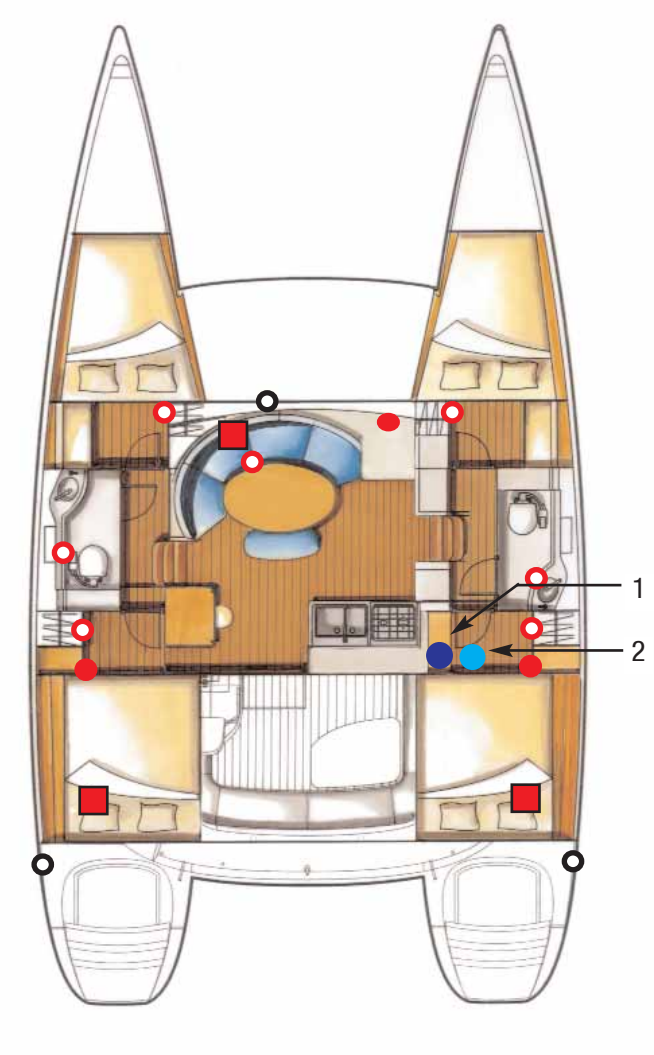
Open and fasten the sliding sash using the inside latch before unfolding the serving hatch shelf.

A removable igloo icebox is located in the forward cockpit locker.

■ Portholes and deck hatches

The portholes and deck hatches are equipped with latch systems to keep them in a closed position.
At mooring, intermediate opening positions allow for airing of the boat.

REFRIGERATION UNIT - HEATING



1 - Outlet valve of refrigeration unit.

2 - Seawater intake valve of refrigeration unit.

HEATING

- Diesel oil boiler
- Pulsed air outlet
- Boiler exhaust outlet
- Start up and temperature control

■ Water cooled refrigeration unit (optional)

Before turning on the refrigerator
- Open the seawater cooling intake valve located under the gangway floor in front of the starboard aft cabin.
- Open the draining valve located under the cabinet in front of the starboard aft cabin.

For the maintenance of the water cooled refrigerator refer to the instruction manual.

■ Heating (optional)

The heating system operates on 12 V supply.
It consists of three boilers located under the forward bench seat of the saloon and in the locker under each aft berth.
The port hull and saloon boilers are supplied with diesel from the port tank.
The starboard hull boiler is supplied with diesel from the starboard tank.

To turn on the system :
- The system is supplied with 12 V electricity as soon as the boat mains supply is switched on (House battery switches).
- Turn on the heaters with their controls and then set the desired temperature with the thermostats.

For the maintenance of the heating refer to the instruction manual.

Electricity 6

BATTERIES/CIRCUIT BREAKERS . 51

OPERATION OF 12 V CIRCUIT 53

110 V - 220 V CIRCUIT 55

ELECTRICAL PANEL CUPBOARD..... 55

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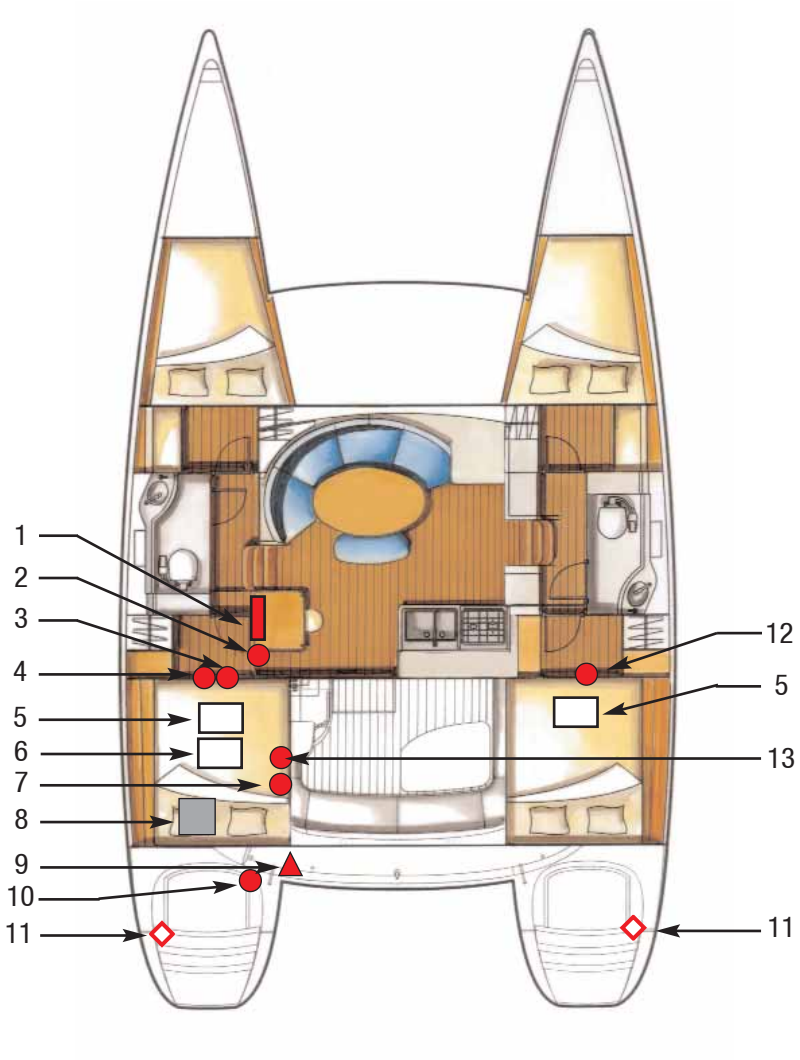
SHORE SUPPLY..... 57

SHORE SUPPLY..... 57

ELECTRONICS..... 57



1 - Electrical panel.
2 - Circuit breakers, 110 V - 220 V.
3 - Battery switches, engine + house.
4 - Windlass circuit breaker.
5 - 12V battery set, engine.
6 - 12V battery set, house.
7 - Battery charger.
8 - Water heater.
9 - Shore supply connector.
10 - Shore supply circuit-breaker.
11 - Ventilators.
12 - Battery switches + engine couplings.
13 - Charge distributor.

The locations are the same for the other layout version.

■ Batteries and circuit breakers

The electricity onboard is 12 V DC. The electrical system consists of service batteries. The batteries supply power to all the functions on board (see SPECIFICATIONS chapter for battery capacity).

The mains power for the 12 V circuit is activated by turning the battery switches in the port aft cabin to ON.

• MAINTENANCE

Keep the batteries charged (essential to ensure longevity).
It is possible to operate with the battery store charged to 80% on the condition that the batteries are charged weekly to 100%.

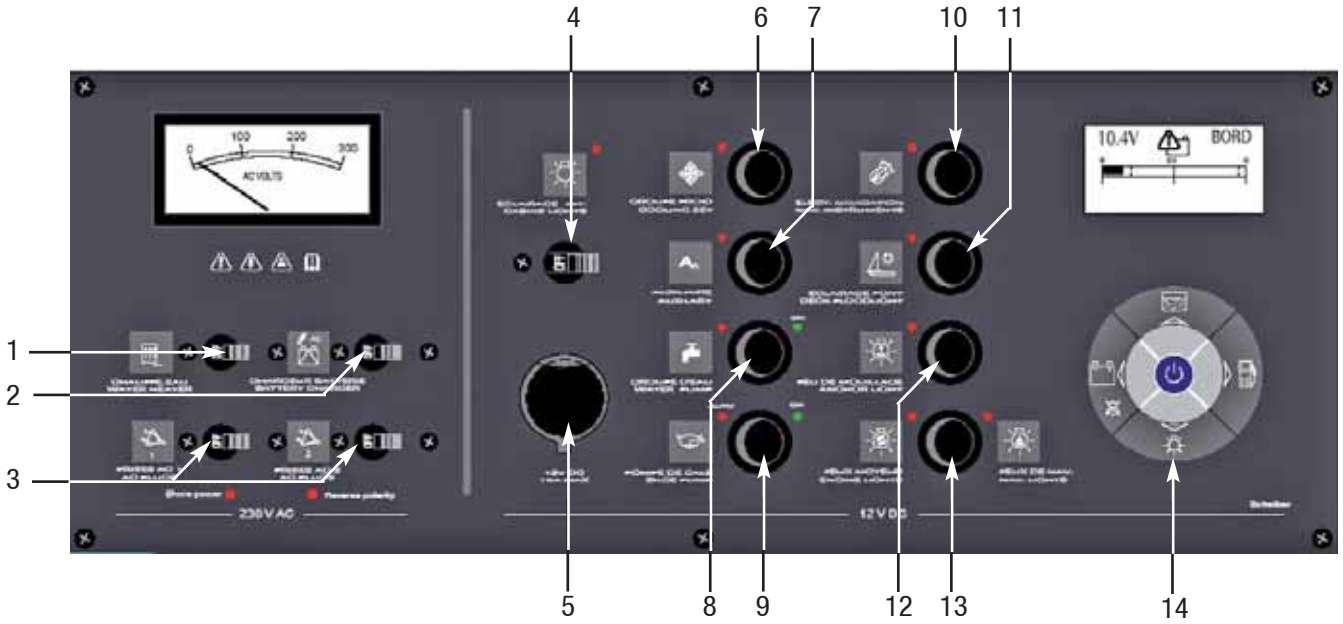
Never run batteries down below 70% of their nominal capacity.

So as to have correctly charged batteries whenever setting out to sea, take advantage of periods alongside to use the charger or select an operation mode which enables the generator to function.

A battery monitor (DC meter on the electrical panel) enables control of the charge, voltage and depletion rate of the service batteries and of the generator (optional extra).
For its use see the instruction guide.

Always check the battery and charge system condition before you put out to sea.
Keep the batteries clean and dry in order to avoid premature wear.
Have the acidity level of the battery checked if left unused for a prolonged period. Check the level regularly.
Tighten and maintain the terminal connectors by lubricating them regularly with Vaseline.

WARNING
A damaged battery will never recover its original capacity.
The service batteries should be charged to their maximum.



1 - 220 V AC water heater.
2 - 220 V AC battery charger.
3 - 220 V AC sockets.
4 - Interior lighting.
5 - 12 V DC socket.

6 - Refrigerator.
7 - Confort (Waste water pump).
8 - Water pump.
9 - Port bilge pump.
10 - Navigation station.

11 - Deck light.
12 - Mooring lights.
13A - Navigation lights.
13B - Cross tree light.
14 - Selector gauge - water and fuel, battery.

■ Operation of 12 V circuit

RECOMMENDATION
Never leave the boat unattended when the electrical system is switched on (except the safety equipment directly connected to the battery and protected by a circuit breaker).

In the event of an electric appliance is not receiving power, check:

- The main power supply.
- The switches and circuit breakers on the line.
- The relevant electrical unit.

WARNING
Call in a technician skilled in marine electricity to carry out any electrical modifications.

RECOMMENDATION
- Never modify an electric fixture or the relevant layouts yourself.
- Call in a technician skilled in marine electricity to carry out any electrical modifications.
- Never change the breaking capacity (amperage) of the overcurrent safety devices.
- Never install or replace any electrical appliances (or any electrical equipment) with components exceeding the capacity (amperage) of the circuit (wattage for bulbs).

220 V CIRCUIT BREAKER

(in the cupboard to the rear of the port gangway)

1 - Charge distributor.

2 - 220 V / 12 V battery charger.

■ 110 V - 220 V System

Option on the Club version.
The different electrical devices which work on 110 V - 220 V supply have their switches grouped together on the right hand side of the electrical panel.

• PROTECTION

Connect the casing or metal housing of the electrical appliances installed to the earth protection conductor of the vessel (green conductor with yellow stripes).

■ Service compartment

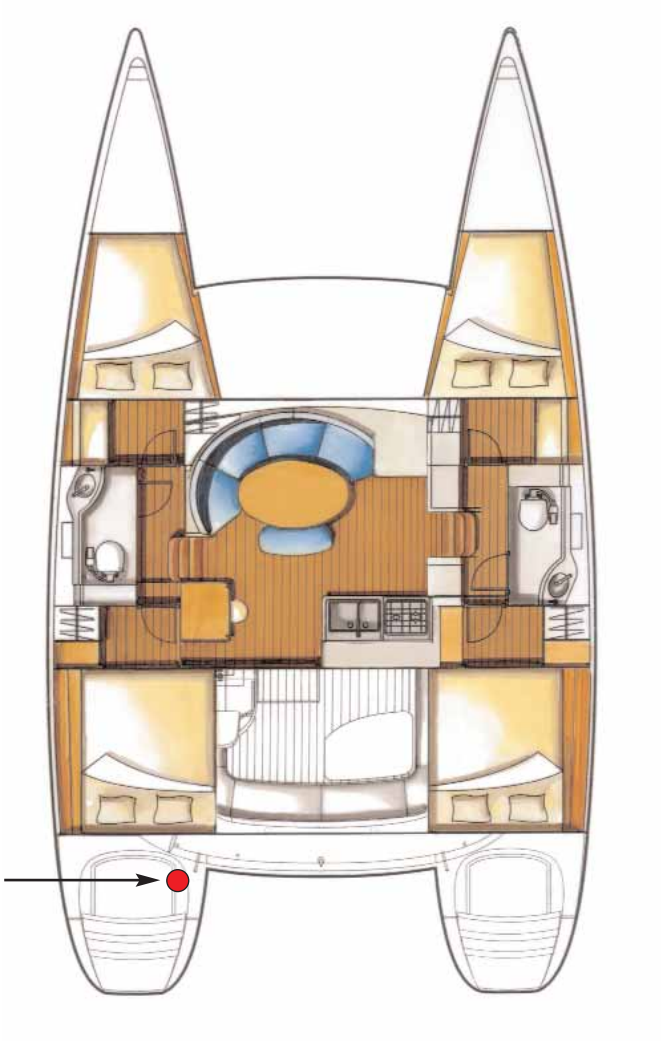
The service compartment which contains the fuses is located in the cupboard to the rear of the port gangway under the main 220V circuit breaker.

■ Battery charger

The battery charger can be used with the shore supply function.
Access to it is gained through the locker under the port aft berth.
Turn on the charger using the circuit breaker on the electrical panel.

For the maintenance of the charger refer to the instruction manual.

SHORE SUPPLY CIRCUIT BREAKER



1 - Shore supply circuit breaker.

The locations are the same for the other layout version.

■ Shore supply

DANGER
Never leave the extremity of a boat/shore power supply cable hanging in the water - it could create an electrical field liable to injure or kill any nearby swimmers.

RECOMMENDATION
In order to reduce the risk of electric shock and fire:
- Before you plug in or unplug the boat/shore power supply cable, switch off the shut off device connected to the shore supply.
- Connect the boat/shore power supply cable in the boat before connecting it to the shore supply socket.
- Unplug the boat/shore supply cable on shore first. Close the shore socket cover.
- Do not modify the connections of the boat/shore supply cable.

■ Mast wire harness

During mast-stepping insert the cables through the base of the mast.

The connection is made at the mast step junction box located in the forward locker of the saloon bench seat. See LAUNCHING chapter.

■ Electronics

Do not install electronic instruments or repeaters less than 1.5 m away from the radio loudspeakers, if your boat has them.

Do not place the autopilot compass less than 0.5 m away from the electrical harnesses.

RECOMMENDATION
For your electrical requirements, we recommend you consult a specialist or one of our network of technicians.

• ELECTRONICS PACKS (OPTIONAL EXTRAS)

Different electronics packs are offered on option.

Plumbing 7

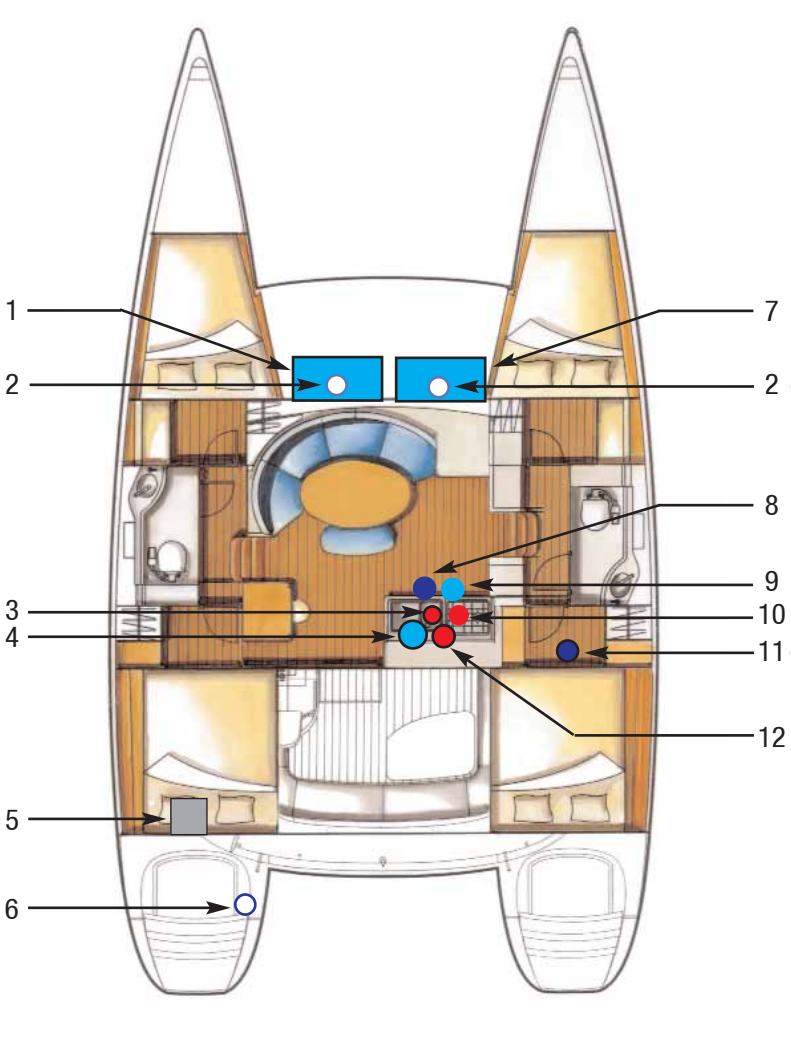
WATER TANKS 61

FRESH WATER SYSTEM 61

GAS SYSTEM 63

WATER DRAINAGE SYSTEM 63

SANITARY EQUIPMENT 65



1 - Forward port tank (optional).
2 - Deck filler.
3 - Selection valve for shore/tank freshwater (optional).
4 - Water pump + expansion tank.
5 - Water heater.
6 - Freshwater shore connector (optional).
7 - Forward starboard tank.
8 - Foot-pump/ seawater (optional).
9 - Foot-pump/ freshwater (optional).
10 - Gas tap.
11 - Valve for seawater intake/ foot-pump option.
12 - Valves for Port/Stbd tank selection (optional).

PLUMBING BOARD

TANK SELECTION VALVES

The locations are the same for the other layout version.

■ Water tanks

• FILLING

In order to prevent any handling mistakes, never fill the water and fuel tanks at the same time.
During filling, avoid handling contaminants near the fillers.

Open and close the filler caps with the suitable key. Check the filler cap seals for condition during filling. The tanks are fitted with overflow outlets and vents. Never insert the water filling hose deep down into the system in order to prevent any over-pressure in the systems.

• MAINTENANCE

RECOMMENDATION
- Check the quality of the filling water. Make sure that the water is drinkable.
- The tanks can be sterilized using a Clonazione tablet (available from chemists).
- In the case of long periods of inactivity purify the tanks and piping using an appropriate treatment.

Inspection points are provided on tanks and from which it is possible to clean the inside.
NB: The capacity of the fresh water tank or tanks indicated on the 'Specifications' may not be completely useable depending on the trim and load of the boat.

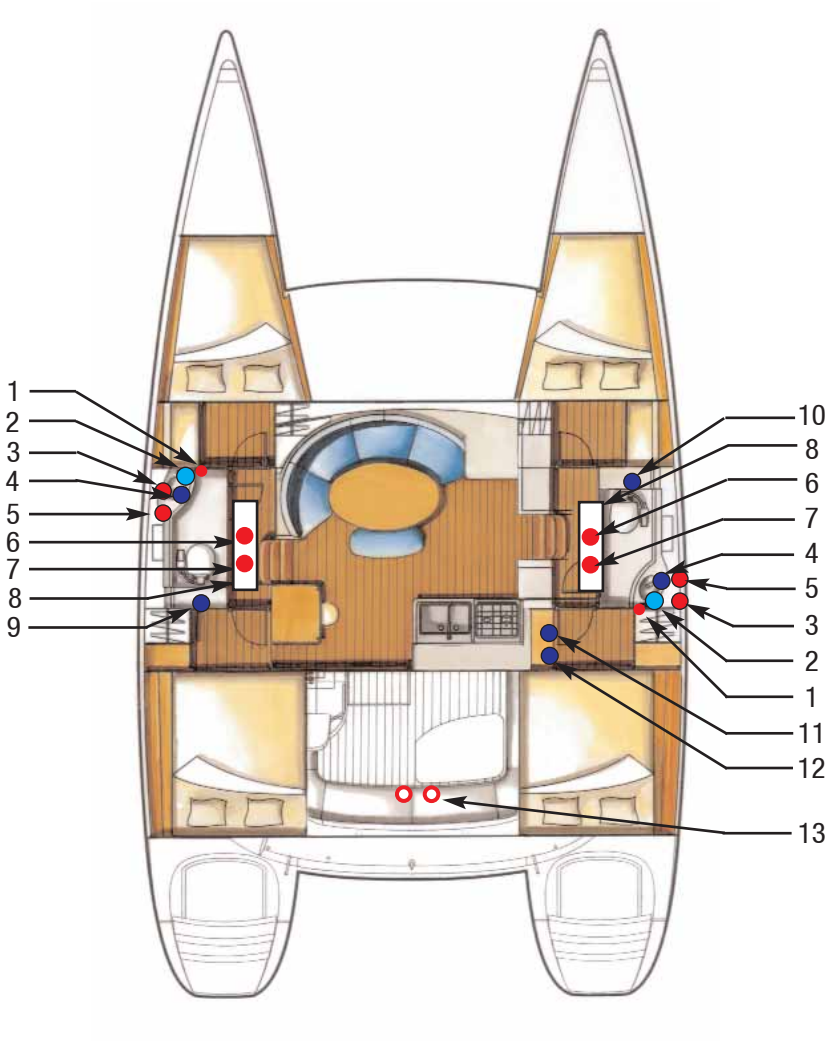
■ Fresh water filter

The water pump is switched on at the electrical panel.
The 3-way valve enables the water system source to be switched from the starboard tank to the port tank (optional).
For optimisation of use of fresh water completely use up one tank's supply before switching over to the other.

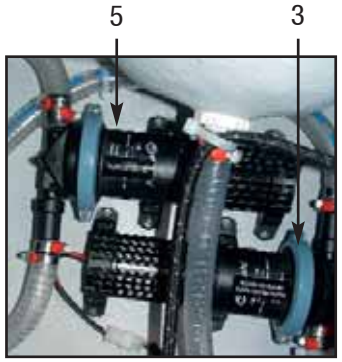
RECOMMENDATION
- Never operate the water system equipment when the valve is closed or the tank is empty (the electrical equipment may be damaged).
- Check the water filter for condition (refer to manufacturer's instructions).

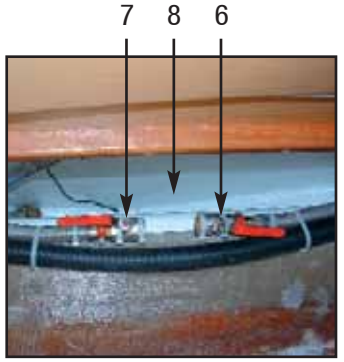
• FRESHWATER SHORE SUPPLY (OPTIONAL EXTRA)

The vessel may be equipped with a connector for the shore supply of freshwater.
The nozzle on the port transom extension enables a hose to be connected to supply the onboard system from a quayside freshwater hydrant.
After having connected the hose turn the 3-way valve located under the sink to shore.



1 - Shower pump switch.
2 - WC suction valve.
3 - Shower drainage pump.
4 - Washbasin draining valve.
5 - Electric bilge pump.
6 - Drainage valve for forward watertight compartment.
7 - Drainage valve for aft watertight compartment.
8 - Sump well.
9 - WC draining/ port sewage tank.
10 - Draining valve for starboard forward WC.
11 - Draining valve for icebox.
12 - Sink draining valve.
13 - Manual bilge pump.





The locations are the same for the other layout version.

■ Gas system

Refer to chapter on SAFETY.
Refer to "FRESH WATER AND GAS" diagram.
When changing the gas bottle, refit the cap in place on the regulator threaded section (to avoid corrosion).

RECOMMENDATION
Shut off the gas safety valve and the regulator tap when the stove is not in use.

■ Water evacuation system

A main sump well is located under the floor of each hull. It is drained by:
- A manual bilge pump.
- An automatic-start electrical pump is located in the toilet cupboard.

The fore compartments and the engine bilges are watertight. A hose equipped with a valve enables water that enters accidentally to run into the sumps. These valves are located in the wells under the gangway floors. Normally these remain closed.

Waste water from the heads is drained off by thru-hull fittings with ball valves (the valve is closed when the valve handle is perpendicular to the hose, the valve is open when the valve handle is in line with the hose).

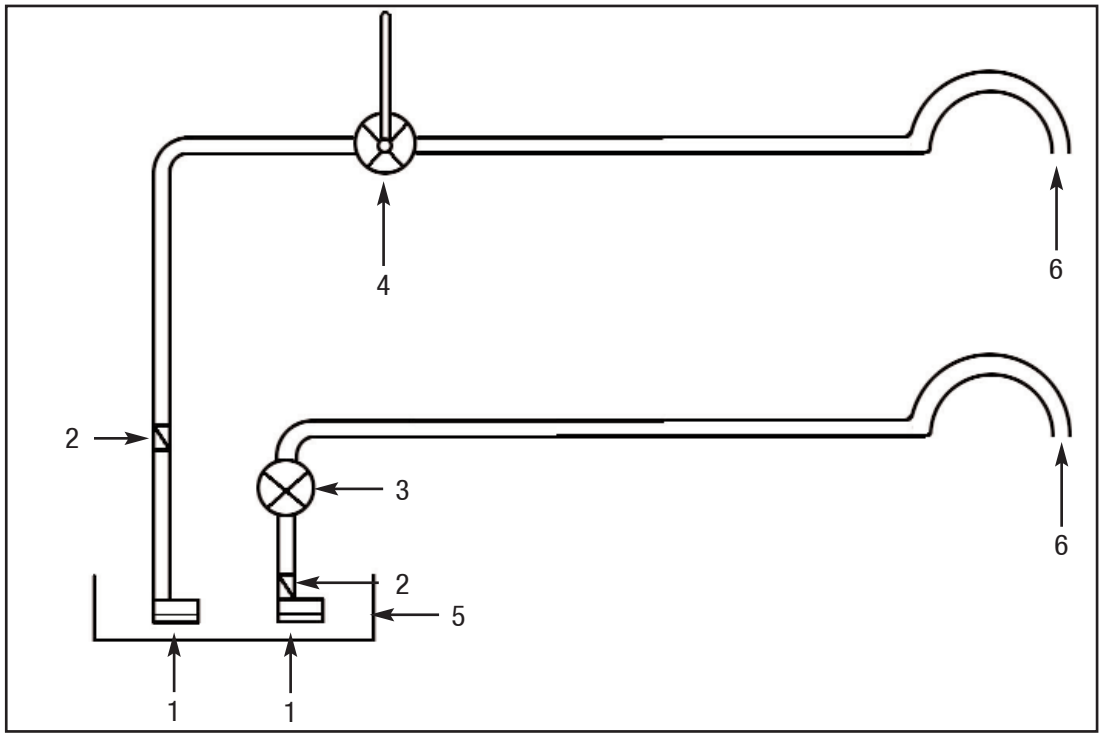
• MAINTENANCE

- Regularly check the valves and thru-hull fittings for proper operation and water-tightness.
- Turn off the valves when the water system is not in use.
- Visually check water pump flow.
- Check the clamps and flexible hose connections for tightness.
- Regularly make sure that the sump and bilge are perfectly clean.

RECOMMENDATION
Immediately switch off the electric system if a pump starts running when all the water supplies are turned off.
- Check the system and neutralise the problem.

WARNING
The bilge pump system is not designed to provide buoyancy for the boat in the event of damage. The bilge pump system is designed to drain water from sea spray or leaks but absolutely not to drain water entering through a hole in the hull as a result of damage.

MAIN WATER DRAINAGE SYSTEM DIAGRAM



1 - Strainer.
2 - Anti-return valve.
3 - Automatically activated bilge pump.
4 - Manual bilge-pump in cockpit.
5 - Sump drain. .
6 - Drainage outlet.

■ Sanitary equipment

• USE OF WASHBASINS AND SHOWERS

The waste waters from the washroom are drained by pumps located under the basins.
Activate the on switch located in front of the basin.

Clean the filters and bowls regularly.

RECOMMENDATION
When you are in a marina, use the club-house sanitary facilities (if provided).
The waste holding tank must be used in marinas or countries where the discharge of waste waters is prohibited.

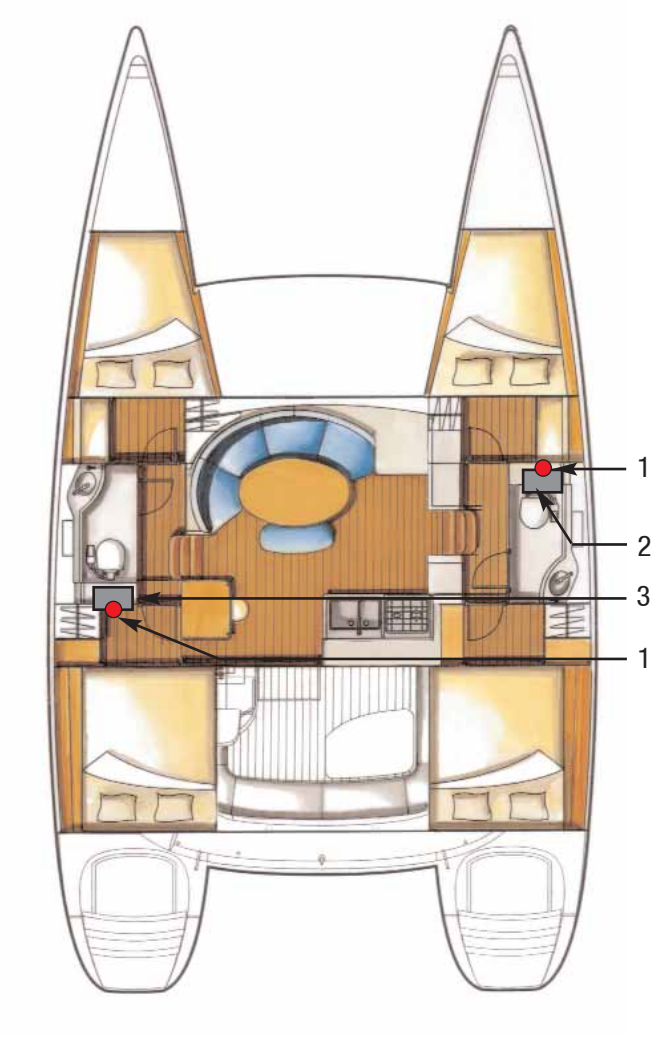
• USE OF MARINE TOILETS

Before you use the heads, check that the water intake and draining valves are open.

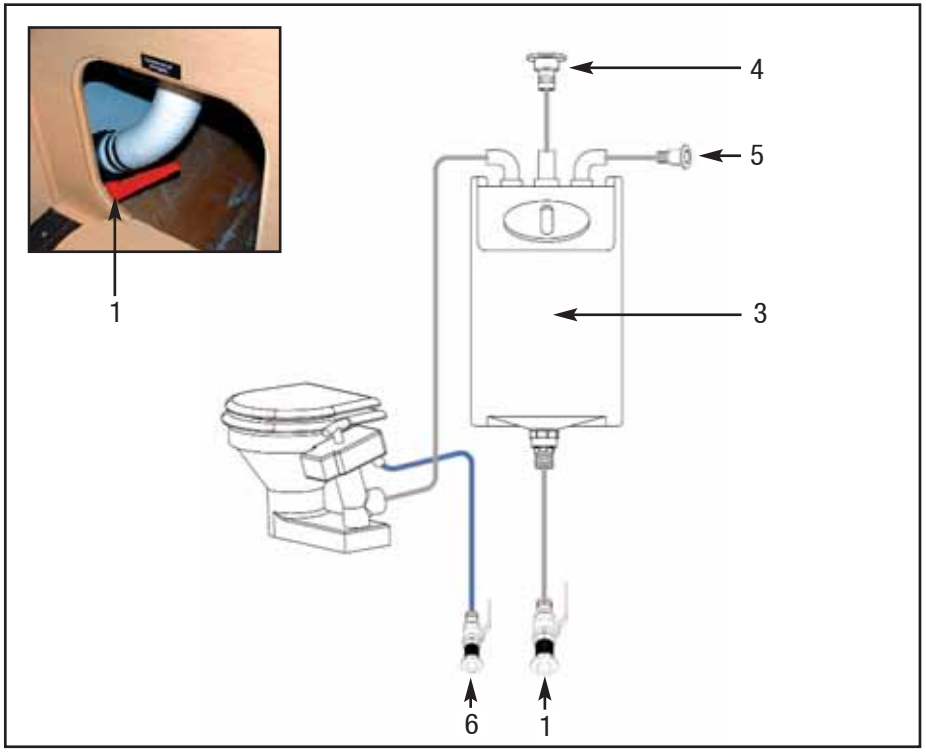
To empty the bowl:
- Set the control lever of the pump slantwise (FLUSH).
- Operate the pump.

To dry the bowl:
- Set the lever to vertical (DRY).
- Operate the pump.

WASTE HOLDING TANKS



WASTE WATER TANK SYSTEM



1 - Drainage valve on hull.
2 - Starboard sewage tank (optional extra).
3 - Port sewage tank..
4 - Deck pump-out fitting.
5 - Vent hole.
6 - Sea water intake valve.

The port hull toilets are fitted with a sewage tank (optional on the Club version).
The starboard hull toilets can be fitted with one as an optional extra.

Before use ensure that the drain valve on the bowl is closed in order to avoid any inadvertent discharge (valve is closed when the valve handle is perpendicular with the pipe).

To empty the tank:
- In an authorized area, open the draining valve.
- In marinas equipped with an organic waste suction system, insert the aspiration hose into the tank through the deck pump-out fitting then start the suction.

WARNING
Find out about current law in your country or marina relative to discharging waste water into the sea.

The filler caps are opened and closed with an appropriate key.
When the tank has been emptied, check the cap seal for condition then close the filler.
To rinse out the system, fill the tank with fresh or sea water, then empty.
Only use domestic cleaning products.

The tanks must be empty when the boat is moored in negative temperatures.

RECOMMENDATION
Use the pump system at ports or marinas to empty the waste holding tanks.

RECOMMENDATION
For the protection of the environment, do not discharge the contents of the waste holding tanks near the shore.

Motorization 8

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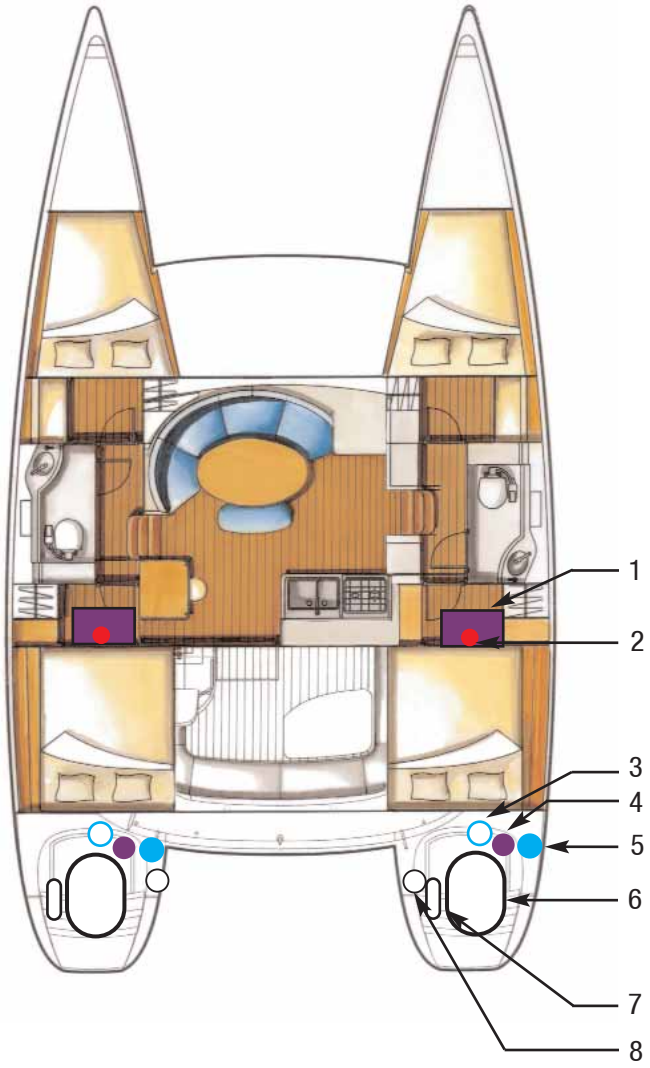
FUEL FILTER **73**

ENGINES **75**

INSTRUMENT PANEL **77**

PROPELLERS AND ANODES **77**



1 - Fuel tank.

2 - Fuel shut-off valve.

3 - Muffler.

4 - Fuel filter.

5 - Sea water filter.

6 - Engine.

7 - Exhaust hose.

8 - Deck fillers for tanks.

■ Fuel tanks

The boat is fitted with two tanks (one in each hull).
Each must be filled separately.
They both have a fuel gauge on the engine panel.

• FILLING

Take the general precautions stated in the PLUMBING chapter relative to filling the water tanks.
Fill the tanks using the two fuel fillers.
In order to protect the deck from possible fuel splash, wet the area around the filler with sea water before you remove the filler cap.
In case of splashes, rinse the deck thoroughly (after refitting the filler cap).

DANGER
Stop the engine and do not smoke while filling fuel tanks.

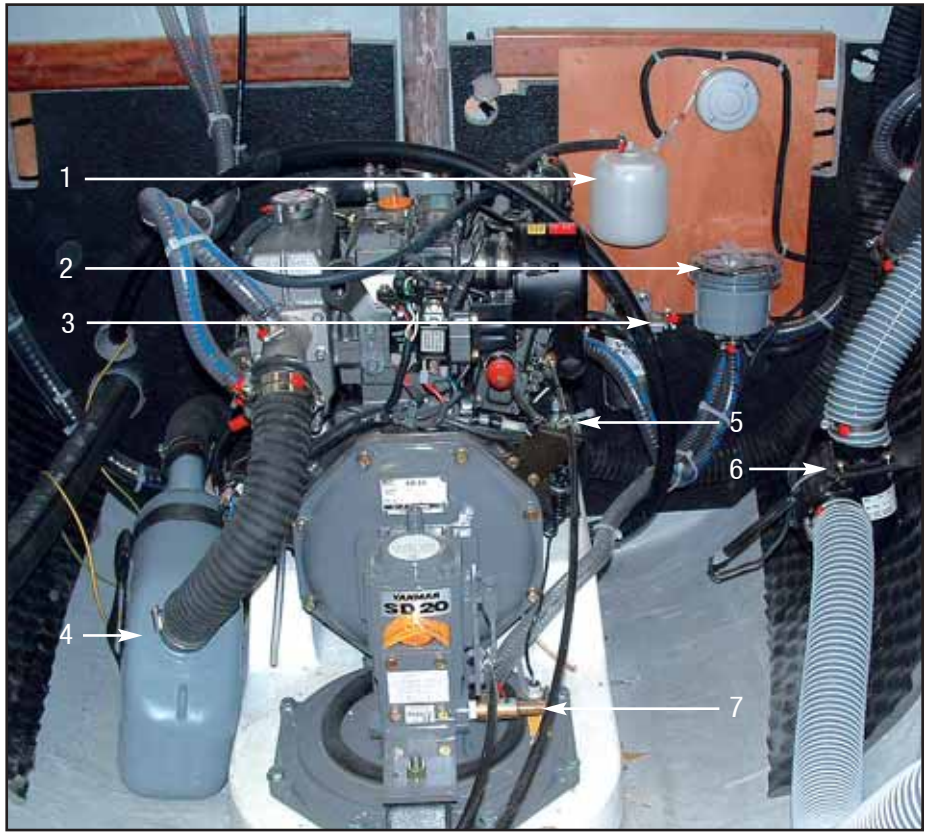
• MAINTENANCE

- Regularly check the condition of the O-ring of the filler (in order to prevent water entering the tanks).
- Do not shut the fuel valves after each use (except in the event of prolonged absence).
- Keep the fuel tank as full as possible (to avoid condensation).
- Every 5 years clean the tank to remove any sludge deposits.
- Every year check the condition of the fuel system (hose, valves, etc.).

NB: The capacity of the fuel tanks indicated on the GENERAL SPECIFICATIONS page may not be completely useable, depending to the trim and load of the boat.

Always keep a fuel reserve of 20 %.

RECOMMENDATION
Have a professional carry out any work on damaged parts of the fuel system.



1 - Muffler.

2 - Seawater filter.

3 - Fuel filter.

4 - Exhaust pipe .

5 - Engine.

6 - Bilge ventilator.

7 - Engine water intake.

■ Fuel filters

Problems with the engine may have various causes, one of which is dirty fuel.
The injection pump may break down if there is water in the system.
Water in the fuel is a result either of condensation caused by an insufficiently filled tank or by a filler-cap either not being closed properly or with a damaged seal.

In order to prevent any water infiltration, the fuel runs through two filters.
- The first filter is on the pipe that joins the tank to the engine, it has the functions of a water decanter and pre-filter.
- A second filter is integrated into the engine itself, its purpose is to filter the fuel very finely. For information about maintenance and replacement, please refer to the engine manual.

Drain by undoing the knurled screw at the base of the decantation bowl (but not removing it).
Allow to flow into a box till the fuel looks clean.

Carry out this operation several times a year.
Change the pre-filter at least once a year (for access, remove the bowl).

ENGINE WATER INLET

■ Engines

RECOMMENDATION
Read carefully the instructions provided with your boat.

WARNING
Never run the engine when the boat is out of the water.

• ENGINE ACCESS

Access to the engines is obtained through the skirt hatches.

RECOMMENDATION
Stop the engine before opening the hatches.
Should you need to access an engine while it is running:
- Stay away from belts and mobile parts.
- Be careful to avoid catching clothing, long hair or rings in the engine.
- Wear appropriate clothes (gloves, hat etc.).

• ENGINE WATER INLET

The water inlet valves are essential for the operation of the engine. These valves must be open before the engine is started (risk of rapid deterioration of the exhaust pipe and of major damage to the engine).

- Keep the strainer under the hull as clean as possible.
- Brush the strainer when the boat is hauled.
- Do not cover the strainer with antifouling paint.

ADVICE: Get into the habit of checking immediately after starting the engine that water is expelled with the exhaust gases.
If no water is expelled:
- Stop the engine immediately.
- Check that the valve is open.

Close the water inlet valve if the boat is left unattended for a prolonged period.
Inspect and clean the water filter regularly.

FUEL VALVES

ANODE
(on base plate)

ANODE
(On hull, under water line)

• FUEL

Do not wait until the fuel tanks are almost empty before re-fuelling (the system may stop due to lack of fuel).
Ensure you have enough fuel before sailing.

• MAINTENANCE

Refer to the manufacturer's manual provided with your boat.
Be careful to avoid any spillage of fuel or oil.
Check the colour of exhaust gases. In the case of excessive white or black smoke, consult an engine specialist.

■ Engine instrument panel

The instrument panel contains all the checking functions of the engine and it does not require any special precautions (refer to the engine manual).

■ Propellers and anodes

The propellers supplied as a standard with you boat are the result of tests carried out jointly with the engine manufacturer.

RECOMMENDATION
Do not change the propellers without a specialist's advice.

Remove the foldaway propellers (optional extra) at the end of each season, dismantle them and clean them carefully.
Grease the thrust bearing surfaces and teeth.
Check that the propeller blades move easily.
If necessary, install new anodes (on hulls and base plates).

Replace anodes before they are 50% corroded.

RECOMMENDATION
Ensure that the base plate anodes have good metal contact with the transmissions.
Never paint the anodes.
Assemble the propellers before re-launching the boat.

Rigging & sails

9

STANDING RIGGING **81**

RUNNING RIGGING **83**

WINCHES **83**

SAIL TRIM **85**

SAILS **87**

RUNNING RIGGING TABLE

Désignation	Length (m)	Diameter (mm)	type
Main halyard	50	12	polyester
Spinnaker halyard (optional)	39	14	polyester
Spinnaker sheet (optional)	2 x 24	12	polyester
Sheet + Spinnaker arm (optional)	2 x 18	12	polyester
Genoa halyard	36	12	polyester
Boom topping lift	34	8	polyester
Genoa sheet	2 x 15	12	polyester
Mainsail sheet	25	12	polyester
Traveller control line	16	7	polyester

■ Standing rigging

• SETTINGS
Your mast will have been pre-set both by the boatyard and by the mast manufacturer during the first masting.

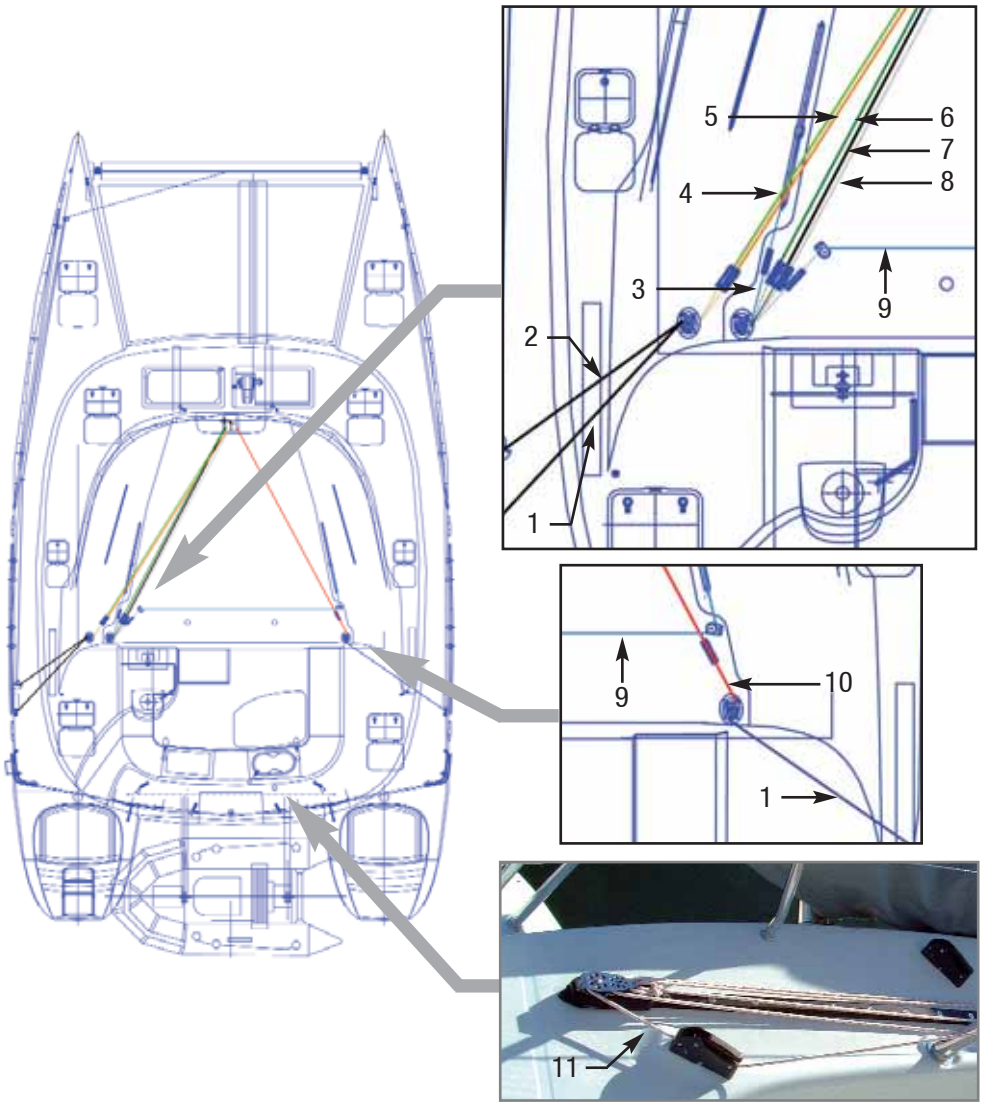
However, after a few sea trips, the mast should be reset once the cables have "given" to their full length. Proceed as follows:
- Loosen the lower shrouds.
- Tighten the topping lift or use the main sail halyard in its place.
- Slacken the lazy Jacks.
- Take up the upper and lower diamonds, evenly in order to obtain a straight profile. The mast should now curve evenly towards aft.
- The forestay is pre-adjusted to have an angle of 2.6° to aft.
- Tension the backstays by tightening the rigging screw bodies with a 30cm pipe (check that the mast head is centred).
- Take the tension back up in the lower shrouds by turning the turnbuckles by hand.
- Take the lazy Jacks back up.
- The mast should remain curved towards aft.

Under sail with a 20 knot apparent cross wind, it is normal for the leeward rigging to be slightly slack; if necessary, thread a shock cord between the upper and lower shrouds at 'eye' level to stop any flapping.

• MAINTENANCE
Before each trip, carefully inspect the mast from top to bottom.
Periodically check the tension of the rigging and the lock nuts or pins for tightness (you should check them for the first time after a few days sailing in all types of weather).
Secure and lubricate the turnbuckles with tallow, graphite grease or other (never use silicone).
Check the tightness of the turnbuckles.
Inspect the turnbuckles for possible wear (due to chainplate chafe if the rigging is slack).
Change any shroud or stay with severed wires or kinks.
Regularly check the chainplates for wear.

DANGER
To hoist a crew member up to the top of the mast, make a bowline with the halyard directly on the bosun's chair ring (never use the halyard shackle or snap shackle).
Do not hoist a crew member when sailing in heavy weather.

ADVICE: Your LAGOON dealer can carry out all maintenance operations.



1 - Spinnaker sheet (optional).
2 - Genoa furling drum.
3 - Port genoa sheet.
4 - Reef 2.
5 - Reef 1.
6 - Boom topping lift.
7 - Mainsail halyard.
8 - Mainsail sheet.
9 - Starboard genoa sheet.
10 - Spinnaker halyard (optional).
11- Mainsail back and forth traveller.

■ Running rigging

Lubricate the sheaves with silicone. Replace any distorted or dented sheaves. Inspect the sheave pins at the top of the mast once a year.
Regularly check the jam cleat jaws for condition.
Inspect the halyards for wear and condition.
Regularly clean the blocks (excess grease, corrosion spots).
Lightly lubricate the block axles.
Avoid untimely gybes in order to reduce premature wear on the sheets and attachment points.

■ Winches

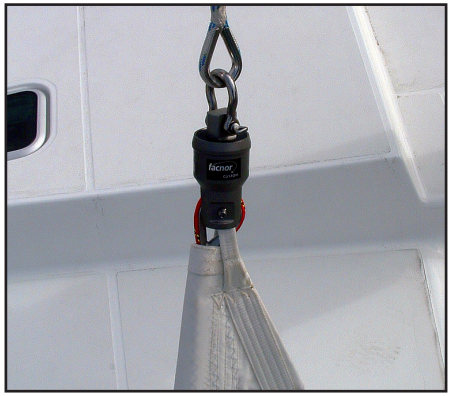
Avoid line jamming during winch handling.
Do not leave lines loose on the winches - fasten them on cleats.
Adjust the winches on taking delivery of your boat (rinse them regularly during the season).
The winches should rotate freely; they need overhauling when slight seizing is noticed.

• MAINTENANCE
Carry out complete maintenance of the winches regularly, before and during the sailing season.
- Remove the drums to clean them.
- Lubricate the drums with a film of white grease or Teflon to reduce friction and prevent corrosion (this type of grease is clean, non toxic and biodegradable).

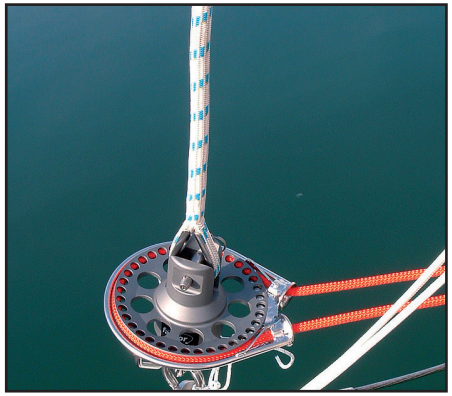
WARNING
Refer to the manufacturer's instructions to remove and refit the winches.
Improper refitting may result in accidents (e.g. crank handle kick).

RECOMMENDATION
A winch drum is designed to have a minimum number of turns necessary so that it does not slip and that the stress is not passed on to the self-tailing mechanism.
Make at least 3 or 4 turns on the winch.

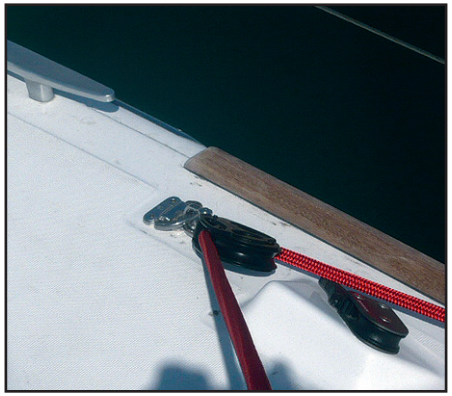
WARNING
Keep hands clear of electrical winches (optional extra) when they are in use.
Close switch covers after use.



FIX HALYARD
TO THE HEAD
CHAIN SWIVEL



CHAIN SWIVEL
TAKE-UP DRUM



RETURN BLOCK FOR
GENNAKER SHEET

PASSAGE OF
GENNAKER SHEET

■ Sail Setting

• FURLING GENOA
Before getting under way, take advantage of a windless period to hoist the genoa.
Pre-roll the drum by hand to set the furling line on it.
Be careful of the way which the drum winds: the UV protection strip of the genoa should be on the outside.

- Secure the head and halyard to the swivel. Secure the tack to the drum and sheets to the clew.
- Insert the bolt line into the hole and hoist it, taking care not to tear it.
- Tighten the halyard sufficiently but hoist it less taut than a sail on a normal stay.
Hoist it until the horizontal creases disappear (adjust the tension of the luff after a few miles at sea).
- Before you furl the genoa, remove the ring that is used to guide the luff tape. Keep the ring in a safe place and replace it before any handling (lowering etc).
- Pull on the line from the cockpit to furl the genoa.

Never force it in case it seizes when you furl or unfurl the head sails. Check that no halyard is caught up in the furler and that the sail is not too taut.

MAINTENANCE
- Rinse the drum and swivel regularly.
- Lubricate the bearings if recommended by the manufacturer.
- Unrig the sails if your boat is not to be used for a prolonged period.

• MAIN SAIL
To hoist the main sail:
- Point your boat into the wind.
- Slacken the main sail sheet.
- Hoist the sail taking care that the battens do not catch up on the Lazy Jacks.

• GENNAKER (OPTIONAL EXTRA)
Before getting under way, take advantage of a windless period to hoist the Genoa.
- Fix the chain swivel to the gennaker head.
- Fix the take up drum to the tack.
- Attach the take up drum to the spar using a snap shackle.
- Fix the halyard to the head chain swivel.
- Hoist the gennaker.
Use the take-up drum stopper to furl or unfurl the gennaker.

SHEETS
- Fix the sheets to the gennaker sheet points.
- Thread the sheets outside of the stay and shrouds and over the jacklines.
- Fasten the sheet return blocks to the chainplates.
- Lead the sheets back to the Genoa sheet winches.

WARNING
De-rig the gennaker when not in use (danger of damage through UV rays and accidental unfurling).

■ Sails

How long a sail lasts mainly depends on how regularly it is maintained.
Advice: At the end of the sailing season, and if possible before winter, take your sails to a specialist to for proper maintenance and repairs.

When at sea, trim the sails properly in accordance with the stresses so as to reduce harmful strains on the fabric.

Prevent tears and wear: protect against chafing from accessories with rough surfaces (protection for spreaders, stanchions etc.).

Between sea-trips, slacken the halyard (for the sails on furler) and the mainsail outhand.

Ensure you have a sail maker's kit and a manual so that you may carry out emergency repairs until you can seek the assistance of a sailmaker.

• CLEANING AND MAINTENANCE

Rinse the sails with fresh water from time to time and dry without delay in order to avoid the formation of mildew.
Do not dry the sails by hoisting and letting them flap (when the sails flap the seams become worn and the sails may be torn by the rigging).

To remove grease spots: Use trichlorethylene and rinse immediately with water.

• STORAGE/FOLDING

Avoid storing wet sails to prevent mildew from forming.
Accordion fold the sail parallel to the foot, then roll it up to the dimensions of the bag.

• PROTECTION

UV rays are harmful to polyester and nylon.
If the sails remain on the mast, even for 24 hours, protect them with a cover or a protective material placed on the leech and foot of the furled sails.

Our network of agents offers accessories selected by the yard to meet your needs.

Safety

10

SAFETY EQUIPMENT 91

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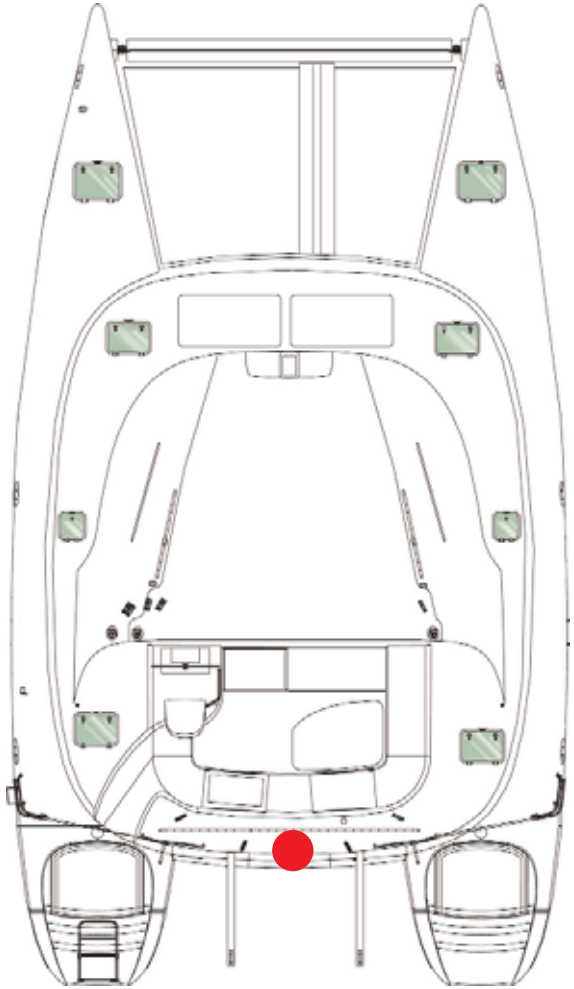
EMERGENCY TILLER 97

CAPSIZING 99

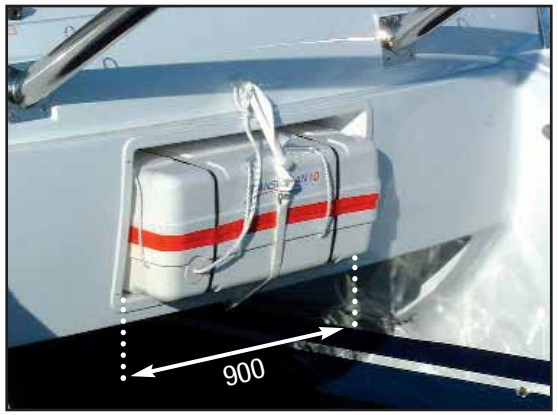
MOTORS 99

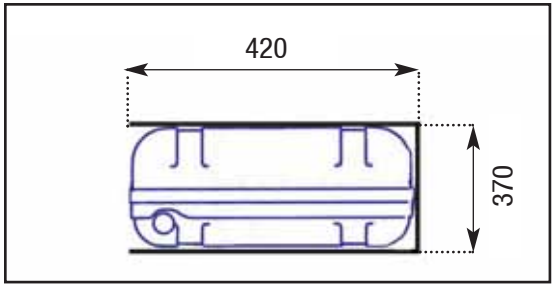
GENERAL POINTS 99

POSITION OF THE LIFERAFT



DIMENSIONS OF LIFE-RAFT LOCKER IN MM





■ Safety Equipment

WARNING
The inventory of compulsory safety equipment corresponds to a standardized category.

- Before you sail, carry out a check of the compulsory safety equipment.

- Attach jack-lines to the deck and underneath the cockpit body (close to the manholes).

- Do not exceed the maximum number of persons indicated in the SPECIFICATIONS chapter.

- Without taking account of the number of people, the combined weight of the people and equipment on board should never exceed the maximum load recommended by the manufacturer.

RECOMMENDATION
Close the deck hatches and fore portholes before leaving the dock or anchorage.

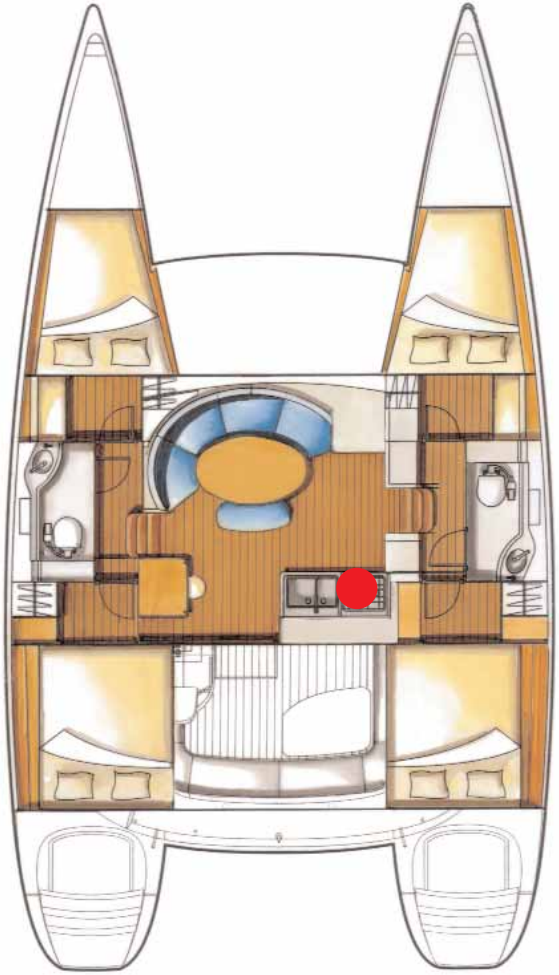
• LIFERAFTS

The life-aft is stowed in the aft beam locker.

At the bottom of the raft locker is a hammer.
In the case of capsizing break the glass of the "manhole" cover using the hammer if necessary.

RECOMMENDATION
Before setting sail, read the liferaft launching instructions carefully.

GAS VALVES



GAS VALVES
(cupboard under the oven)

■ Gas system safety instructions

The gas bottles are located in the starboard locker of the aft cockpit. The type of bottle (butane) is according to the current standards in your country.

Close the system and gas bottle valves when the appliances are not in use.
Close the valves before changing the gas bottle and immediately in the event of an emergency.
Never leave an unattended appliance in use.
Do not fit or store flammable materials above the stove (curtains, paper, napkins etc.).
Do not use the oven or stove as back-up heaters.
Never obstruct access to the components of the gas system.
Ensure that all appliance valves are closed before you open the gas bottle or hose valve.
If you smell gas or find that the burners have gone out (although appliances cut off automatically if the flames go out), close the appliance valves. Ventilate the boat to evacuate any residual gas. Find the cause of the problem.
Test the gas system regularly in order to detect any gas leaks.
Check all connections using soapy water or a detergent solution, closing all appliance valves and opening the gas bottle valve.
If you detect a leak, close the gas bottle valve and repair it before you use it again.

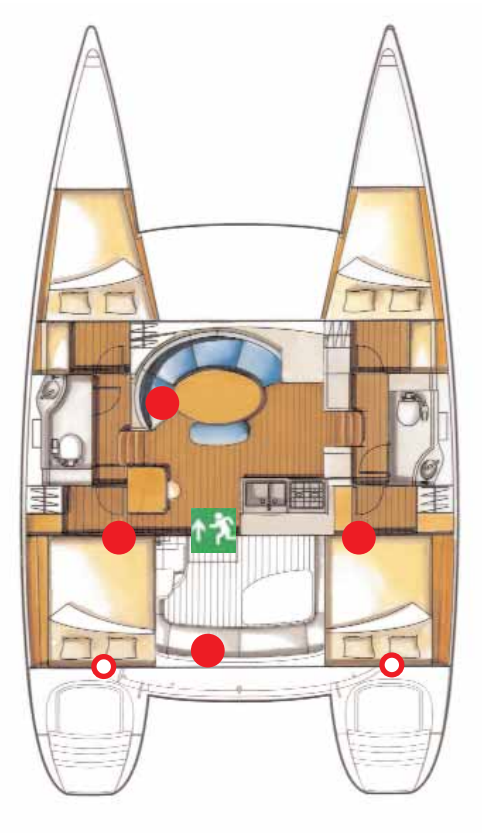
WARNING
- Do not use any solutions containing ammonia.
- Do not use a naked flame to detect leaks.
- Do not smoke, and do not use a naked flame when changing the gas cylinder.

The appliances use oxygen from the cabin and release flammable gases. Ventilate your boat when using the appliances.
Do not obstruct the air vents and leave at least the door open.
Lock the gimbals when not in use in order to avoid damage to the gas hose when sailing.
Keep the valves of empty gas bottles turned off and the gas bottles disconnected.
Keep protective guards, lids, covers and caps in their correct places.
Store any spare and empty gas bottles on the deck or in a locker with exterior ventilation.
Do not use the gas bottle storage compartment to store other equipment. Store the gas bottles in their proper compartment only.
Regularly check and replace the rubber tubing that links the gas bottle to one end of the circuit and the stove to the other, according to the current norms and regulations in your country.
Pay particular attention to maintaining in good condition the screw thread of the gas bottle where the regulator is located. Check the condition of the regulator every year and change it if necessary. Use regulators which are identical to those already fitted.

Have any repairs carried out by a skilled technician.

SUGGESTED LOCATIONS OF THE FIRE EXTINGUISHERS

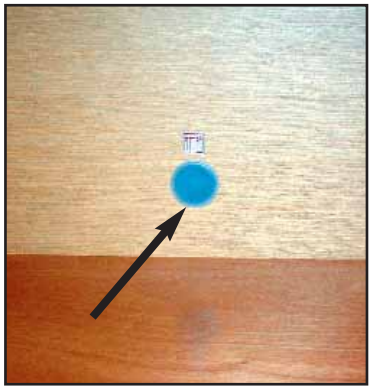
- Other locations are possible; an extinguisher should be found within 5m from any berth.
- An extinguisher must be positioned within at most 2m from each extinction access hole.
- An extinguisher or a fire blanket (ISO 1869) must be located less than 2m from any open flame appliance.
- An extinguisher must be located less than 1m from the steering station.
- The extinguishers must be easily and quickly accessible for use, inspection or maintenance without the need for tools or for dismantling any part of the boat including drawers and shelves.



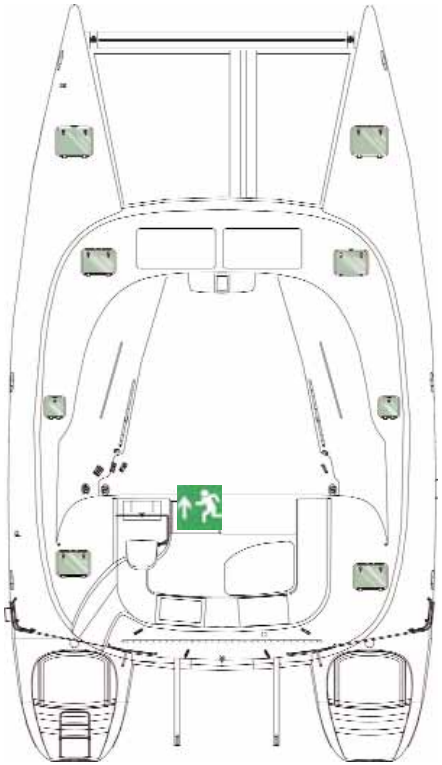
Extinguisher

Emergency exit

Extinguisher hole for the engine compartment



EXTINGUISHER HOLE



The locations are the same for the other layout version.

Firefighting

WARNING
The boat is delivered without extinguishers; you are responsible for applying your country's fire safety laws (number of extinguishers, capacity, type and location).

The extinguishers must be within easy reach and kept away from any potential fire source.

The engine compartments are fitted with an access hole which allows extinguisher contents to be projected into them without having to open the usual access panels.

Procedure in the event of fire in the engine compartment bilge:
- Stop the engine.
- Switch off power and cut off fuel supply.
- First remove the cap then project the extinguishing substance through the extinction hole situated on the partition of the aft cabin.
- Wait one minute before approaching.
- Open the access hatch to carry out repairs.

WARNING
Keep an extinguisher on hand in case the fire should start again.

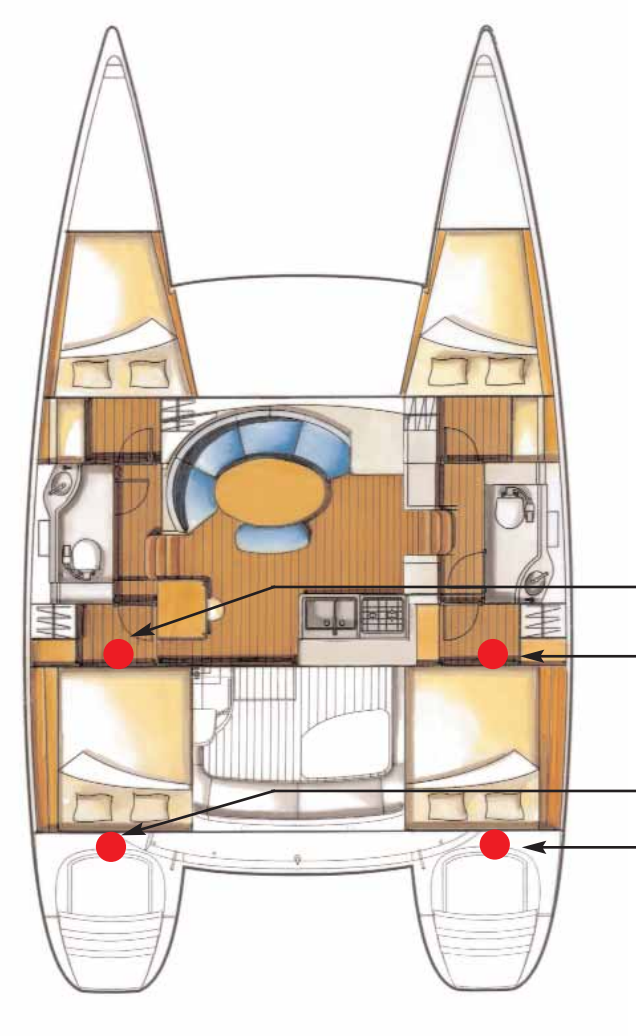
It is the responsibility of the owner or skipper:

- To have the extinguishers checked according to the instructions given.
- To replace any empty or expired extinguishers with others of an equal or a greater capacity.
- To ensure the extinguishers are accessible when people are on board.

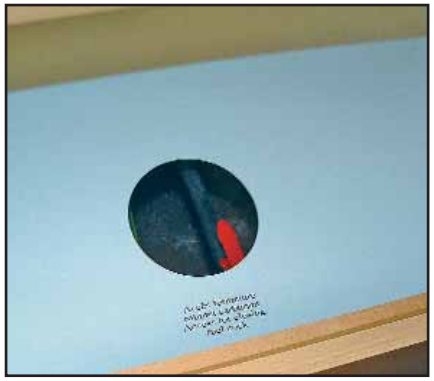
And also inform the crew of:
- The location of the extinguishers and how to use them.
- The location of the extinction holes in the engine compartments.
- The location of the emergency exits.

WARNING
Never:
- Obstruct access to the emergency exits.
- Obstruct the safety controls (fuel valves, gas valves, power switches).
- Obstruct access to the extinguishers placed in lockers.
- Leave the boat unattended when a stove or heater is in use.
- Use gas lamps on the boat.
- Alter any of the boat's systems (electricity, gas or fuel).
- Fill up a tank or change a gas cylinder when an engine is running or a stove or heater is on.
- Smoke while handling fuels or gas.

FUEL VALVE / EMERGENCY TILLER



1 - Fuel valves.
2 - Deck plates for emergency tiller.



FUEL VALVE

EMERGENCY TILLER

Keep the bilge clean. Check regularly for the presence of fuel or gas vapor.

Use only compatible spare parts for extinguishers. Spare parts should have the same specifications or be technically equivalent relative to their resistance to fire.

Always attach the curtains with their snap fasteners when the gas cooker is in use.

Flammable products should not be stored in the engine compartment. Non-flammable products stored in the engine compartment should be attached to prevent them from falling on the machine and obstructing access.

WARNING
Use only carbon dioxide (CO_2) extinguishers to fight electrical fires.
Evacuate the immediate area after discharging the product to prevent asphyxia, and ventilate before entering.

■ Bilge pumping

ELECTRIC BILGE PUMPS
The wells are equipped with two automatic start electric bilge pumps.

MANUAL BILGE PUMPS
The manual bilge pumps are located along the side of the aft cockpit bench.

See PLUMBING chapter.

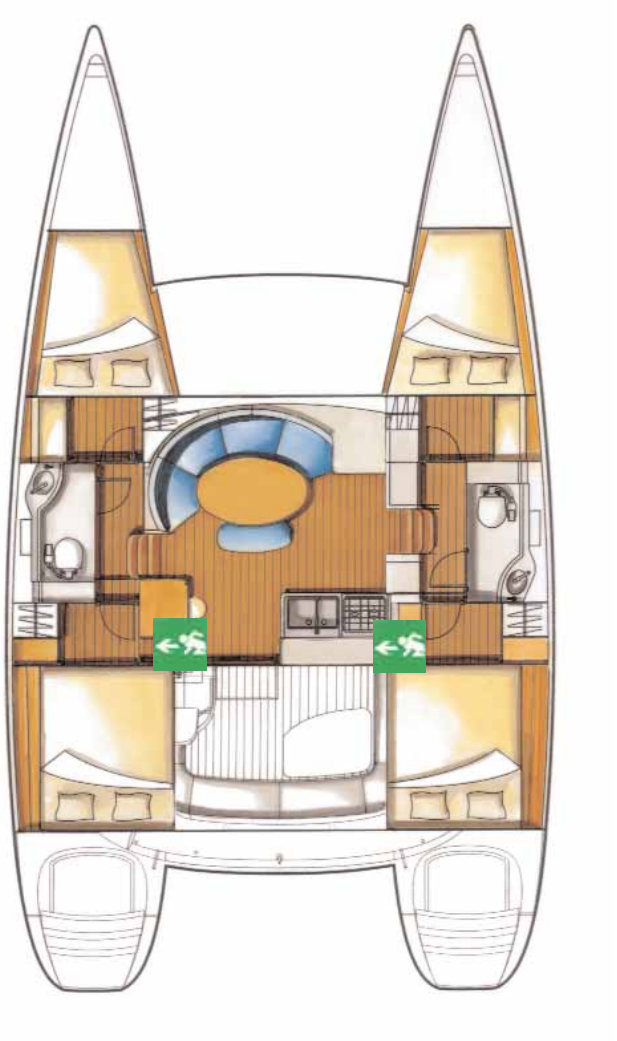
■ Emergency tiller

The emergency tiller is located in a cockpit locker. It must be easily accessible.
To operate the tiller:
- Use a winch handle to unscrew one of the emergency tiller deck plates located on the first step of the rear transom.
- Insert the tiller into the rudderstock, ensuring it is fully engaged in the square.

Regularly check tension of the turnbuckles on the turnbuckles steering cables.

RECOMMENDATION
The emergency tiller is only designed for sailing at a reduced speed in the event of wheel failure.

ESCAPE HATCHES INDICATIONS



■ Capsizing

Escape hatches are fitted in the aft cabins.
In the event of capsizing break the glass using the hammer.

The liferafts are accessible in the transom (see the beginning of the chapter).

■ Motors

- Never start the engines when the boat is out of the water.
- Never turn the propeller when the boat is out of the water.
- Be careful not to cut yourself on the sharp edges of the propellers.

- Stop the engines before diving or swimming around the boat.
- The propeller blades are sharp and can cause major damage when rotating.
- Never attempt to release a fishing net or line caught in the propeller when it is rotating.

- Before weighing anchor, check that the propellers are working in both fore and aft positions.

- In the event of unusual noises or vibrations emanating from the propellers, stop the engines immediately.

If the problem persists, contact the builder or your nearest supplier.

■ General Points

- Locate and warn all crew members before any vessel manouvering.
- Carry out manoeuvres carefully and always with footwear.

- Do not move around on the rigid flying deck.

General specifications

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DESIGN CATEGORIES **102**

SPECIFICATIONS **103**

■ Category A

This boat is designed for sailing in winds exceeding force 8 on the Beaufort scale and in waves of a significant height of 4 m or more, and is to a large extent self-sufficient. Unusual conditions such as hurricanes are excluded.
You may encounter such conditions when you sail long crossings, for instance transoceanic passages, or close to the shore when not protected from the wind or waves over a stretch of several hundred nautical miles.

■ Category B

This boat is designed for sailing in winds not exceeding force 8 on the Beaufort scale and in waves of a corresponding height (significant height of 4 m or less).
These conditions may be encountered out to sea or near the coastline when you are not protected from the wind and waves over several dozen nautical miles. These conditions may also be encountered in inshore waters of proportions sufficient to give waves as high as those mentioned above.

■ Category C

This boat is designed for sailing in winds that may exceed force 6 on the Beaufort scale and in waves of a significant height of 2 m or less. Such conditions can be encountered in exposed inshore waters, in estuaries or in coastal waters in moderate weather.

■ Category D

This boat is designed for sailing in winds not exceeding force 4 on the Beaufort scale and in waves of a corresponding size (occasional waves of 0.5 m maximum).
Such conditions can be encountered in sheltered inshore waters and in coastal areas in good weather.

• NB:

The significant height of a wave is the average height of the upper third of the wave. This approximately corresponds to the height of the wave as assessed by an experienced observer. Some waves will be twice as high as this value.

■ Vessel

L.O.A. .....11,55 m / 37’9”
L.W.L ..... 11,00 m / 36’1”
Max. beam.....6,53 m / 21’5”
Mast height clearance .....17,35 m / 57’
Draught .....1,15 m / 3’9”

Theoretical light displacement.....7260 kg / 16008 lbs
Theoretical maximum load displacement .....10460 kg / 23064 lbs
Maximum load recommended by the builder .....3200 kg / 7056 lbs

Water tank capacity..... 300 l / 79 US gal
Fuel oil tank capacity .....2x100 l / 2x26 US gal
Refrigeration unit capacity.....90 l / 53 US gal
Onboard battery capacity .....2 x 140 Ah (12 V)
Engine battery capacity.....2 x 140 Ah (12 V)

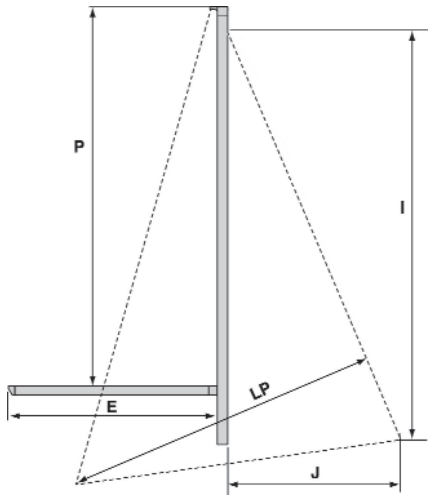
Standard motorization.....2 x 20 HP

CE Category	No. of people
A	8
B	10
C	12
D	14

■ Sails

Battened mainsail .....47 m² / 506 sq.ft
Furling genoa.....30 m² / 323 sq.ft
Gennaker (optional extra).....52 m² / 560 sq.ft

I.....13,13 m / 43’
J ..... 3,57 m / 11’7”
P.....13,65 m / 44’8”
E.....5,40 m / 17’7”
LP.....4,63 m / 15’2”



YOUR LAGOON 380

NAME OF BOAT: . . . . . .

VERSION: . . . . . .

DELIVERY DATE: . . . . . .

REGISTRATION NUMBER: . . . . . .

DOOR KEY NUMBER: . . . . . .

HULL NUMBER: . . . . . .

MAKE OF ENGINE: . . . . . .

ENGINE KEY NUMBERS: . . . . . .

SERIAL NO. OF STARBOARD ENGINE: . . . . . .

SERIAL NO. OF STARBOARD TRANSMISSION: . . . . . .

SERIAL NO. OF PORT ENGINE: . . . . . .

SERIAL NO. OF PORT TRANSMISSION: . . . . . .

OWNER'S NAME: . . . . . .

ADDRESS: . . . . . .

. . . . . .

. . . . . .

Emergency contact tel no. / address

LAGOON
catamarans since 1984

www.cata-lagoon.com

162, quai de Brazza - 33100 Bordeaux - France • Tél. 33 (0) 557 80 92 80 • Fax 33 (0) 557 80 92 81 • E-mail : info@cata-lagoon.com

PERSONAL NOTES

Dealer's stamp

The present document is not contractual. Descriptions and illustrations are provided as a guide only. Our models may undergo certain modifications or improvements to series without notice.

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